# EVALUATION OF EVIDENCE BASED EPISIOTOMY PRACTICE BY THE MIDWIVES AT PUMWANI MATERNITY HOSPITAL LABOUR WARD, NAIROBI

**A DISSERTATION SUBMITTED IN PART FULFILMENT OF THE REQUIREMENTS FOR THE AWARD OF THE DEGREE OF MASTER OF SCIENCE IN NURSING (OBSTETRIC NURSING/ MIDWIFERY) OF THE UNIVERSITY OF NAIROBI**

**TECKLA KEMBOI-NGOTIE**

**H56/70216/2007**

**SUPERVISORS**

**Dr. Grace Omoni, PhD, MSc, Dip MCH, KRM/KRN.**

**Dr. James Mwaura, PhD, MSc, BscN**

**Dr. Blasio Omuga, M.B., CH.B; M.MED OBS/GYN**

**Lecturers, School of Nursing Sciences, University of Nairobi**



**Submitted: October, 2009**

## DECLARATION

I Teckla Kemboi-Ngotie declare that all the work submitted is my original work and has not been presented for a degree in any other university or institution of higher learning.

SIGNATURE ..... DATE .....15/10/09

## DEDICATION

I wish to dedicate this dissertation to my dear husband Walter Ngotie, my children Jackie, Billy, Tuyan and Setei

## CERTIFICATE OF APPROVAL

This dissertation has been presented for examination with the approval of the following university supervisors.

Name: Dr. Grace Omoni — Signature..... Date..15th Oct 2009

Dr. James Mwaura — Signature..... Date....15th October 2009

Dr. Blasio Omuga — Signature..... Date...15th October 2009

# ACKNOWLEDGEMENT

I appreciate the guidance from my supervisors. I also recognize the guidance from Dr. Kingondu, from the department of obstetrics and gynaecology, University of Nairobi for her valuable advice.

I wish to thank my husband Walter Ngotie for his financial and otherwise support.

I appreciate the support from my entire family.

Appreciation also goes to the Pumwani maternity hospital administration and research review team for support.

I thank the Kenyatta National Hospital midwives who participated in pre testing of the research tools

I wish thank my research assistant Mrs. Onginjo, all the research participants and my class mates in all the support toward the process of this research.

# TABLE OF CONTENTS

# LIST OF ABBREVIATIONS

**AIDS**-Acquired Immune Deficiency Syndrome

**BBI**- Better Birth Initiative

**BMJ**- British Medical Journal

**BScN**- Bachelors of Science in Nursing

**CDC**- Centre for Disease Control and prevention

**EBP**- Evidence Based Practice

**ECN**- Enrolled Community Nurse

**HIV**- Human Immunodeficiency Virus.

**HPM**- Health Promotion Model

**ICN**- Intensive Care Nursing

**JAMA** – Journal of American Medical Association

**KNH**- Kenyatta National Hospital

**KRCHN**- Kenya Registered Community Health Nurse

**MScN**- Masters of Science in Nursing

**OBG**- Obstetrics and Gynaecology

**PhD**- Doctor of Philosophy

**PMH** – Pumwani Maternity Hospital

**PMTCT**- Prevention of Mother to Child Transmission

**SPSS**- Statistical Package for the Social Sciences

**UNAIDS**- United Nations Agency for International Development

**UNFPA**- United Nations Population Fund

**UNICEF**- United Nations children's education Fund

**WHO**- World Health Organization

# OPERATIONAL DEFINITIONS

**Birth attendant** –Any member of the health care team who is trained and licensed to attends to the woman during delivery.

**Episiotomy**- An incision through the perineal tissue that is designed to enlarge the vulval outlet during delivery

**Evidence Based Practice**-The conscientious, explicit and judicious use of current best evidence in making decisions for best practice

**Intrapartum**- The time from the onset of true labour until the birth of the infant and the delivery of the placenta

**Instrumental delivery**- The use of forceps or vacuum to aid in delivery of the foetus by applying traction to the foetal head

**Maternal morbidity**-Any departure, subjective of objective, from a state of physiological or psychological well-being during pregnancy, childbirth, and post partum period up 1year

**Maternal mortality** - The death of a mother resulting from obstetrical complications of pregnancy, labour, or the peurperium, and from interventions, omissions, incorrect treatment, or a chain of events resulting from any of these factors

**Midwife**- A person trained to assist women during pregnancy, birth and after birth.

**Multipara**- A woman who is pregnant and has been pregnant more than one time before

**Perinatal**- A period from 22 completed weeks of gestation to 7 days after delivery

**Postpartum**- The period after delivery

**Primigravida**- A woman who is pregnant for the first time

**Vertical transmission**- Also known as mother-to-child-transmission refers to transmission of HIV infection from mother to child during the perinatal period

**Recto-Vagina fistula**- A small channel that connects the rectum with the vagina

# LIST OF TABLES

# LIST OF FIGURES

# ABSTRACT

Research based practice in nursing and midwifery is regarded as a means of ensuring that quality care is provided by integrating individual clinical expertise with the best available external clinical evidence from systematic research. There is an increasing pressure on healthcare professionals to ensure that their practice is based on evidence from good quality research. Becoming abreast with the current evidence based information is not enough if the information is not translated into clinical practices. This study was to establish the midwives' level of evidence based information and how much of it is being applied into the clinical practice.

Evidence based episiotomy practice by the midwives in Pumwani Maternity hospital (PMH) was evaluated using cross-sectional qualitative and quantitative descriptive statistical methods. The study population consisted of fifty eight midwives working in the labour ward; only thirty five appropriately completed questionnaires were analyzed. The focus group discussion and the key informants gave their in-depth views and information during the interview on the study subject. Purposive sampling was used to select the midwives who met the inclusion criteria. Data cleaning was done by ensuring the completeness and consistency of responses in the study tools. Quantitative data analyzed using content analysis and processed according to themes using Statistical Package for the Social Sciences version 16. Quantitative data analysis was done by using inferential and descriptive statistics. Correlation coefficient and CHI square was employed to bring out the relationships among variables.

The study sample included 45 midwives which revealed that 46% of the midwives obtained the evidence based practice information on episiotomy through continuing education and personal efforts. The midwives perform an assessment on the patient before giving an episiotomy and different criteria influence their decision to perform an episiotomy. The most prevalent type of episiotomy preferred by the midwives was medio-lateral (86%) unlike the mid-line. These criteria are not exclusively evidence based. The proportions of midwives based their practices on the following criteria: very tight perineum (17%), breech presentation (13%), premature labour (12%), FGM (10%), instrumental delivery (5%), status of the foetus (9%), and (29%) others (big baby, mothers serological status, shoulder dystocia and poor maternal efforts). Despite the

prevalence of HIV/AIDS among the patient population, episiotomy is still performed under unavoidable circumstance. The respondents stated actual and potential barriers to implementation of evidence based practice (EBP) of episiotomy which included lack of specific guidelines on specific procedures, workload due to high patient population, inadequate administration support, poor accessibility of research reports and personal attitudes.

It is evident from the findings that a higher percentage (49%) of midwives rated their knowledge on evidence based episiotomy practice on high level (4-5 points) but the actual practice did not correspond to the application of the knowledge. The study recommends an urgent need for the PMH to put in place modalities to ensure that practice guidelines are developed, used and reviewed appropriately to ensure standardized services especially in an institution which trains the midwifery students.

# CHAPTER ONE: INTRODUCTION

## 1.0 Background information

The birth of a baby is expected to be momentous occasion. Pregnancy and child birth are a natural part of life experienced by most women. Midwives have a role in the achievements of safe motherhood by helping women and their families through pregnancy and childbirth process (Fraser et al 2006).

Research based practice in nursing and midwifery is regarded as a means of ensuring that quality care is provided (Hodnett et al, 1996). Enkin (1989) defines the science involved in care during pregnancy thus: "The extent to which care is based on evidence that is effective and that which achieves the desired effect".

Episiotomy is a surgical cut that is often performed just before birth to enlarge the opening of the vagina. Episiotomy was invented in Europe in 1742 as a procedure that could assist obstetricians in difficult vaginal delivery. It was not until 1920 when deliveries started to move from home to hospital that episiotomy started to become routine (Repke, 2003).

This practice has been used for many decades in the belief that it offers benefits to mothers (Viswanathan et al 2005). Historically, the purpose of this procedure was to facilitate completion of the second stage of labor to improve both maternal and neonatal outcomes. Maternal benefits were thought to include a reduced risk of perineal trauma, subsequent pelvic floor dysfunction and prolapse, urinary incontinence, fecal incontinence, and sexual dysfunction. Potential benefits to the foetus were thought to include a shortened second stage of labor resulting from more rapid spontaneous delivery or from instrumented vaginal delivery (Repke, et al 2006)

The rationale for its use depends largely on the need to minimize the risks of severe spontaneous maternal trauma and to expedite the birth when there is evidence of foetal compromise. However, during a normal birth the indications for its use are few and the midwife should use her skills to avoid this intervention if at all possible (Fraser et al, 2006). Despite the clear rationale for its use it is noted that the rate of routine episiotomy is still significantly higher than the recommended practice for many countries (Caroli and Belizan, 2001).

A study done by Hartmann et el (2005) in the United States on episiotomy recommended that providers with conservative practice style have rates well below 15%. The study highlighted some measures that should be taken to lower the rates of episiotomy to include preparation of guidelines and protocols according to the standard and training for the nurses, midwives, and doctors on the selective use of episiotomy.

Currently, there is an increasing pressure on healthcare professionals to ensure that their practice is based on evidence from good quality research. Cochrane, (1972) identified the lack of scientific rigor in medical clinical decision making, the kind of research grounded on the evidence based practice.

"Evidence based medicine is the conscientious, explicit and judicious use of current best evidence in making decisions about the care of individual patients. The practice of evidence based medicine means integrating individual clinical expertise with the best available external clinical evidence from systematic research" (Sackett et al, 1996).

### 1.1 Problem statement

Pumwani maternity hospital is one of the biggest maternity not only in Kenya but also in East Africa (Nicholas, 2004). The hospital serves the majority of the population around Nairobi city and its outskirts. Pumwani houses the school of midwifery that offers training of Kenya Registered and Enrolled midwives according to the Kenya nursing council regulation. According to the records there is an average of sixty (60) deliveries per day and an average of five (5) episiotomies performed daily.

With the HIV/AIDS epidemic still growing rapidly in many countries, and with the most stricken countries having more than one-third of women giving birth being HIV infected, both protection of the health workers and the risk of vertical transmission from episiotomy must be considered (Liljestrand, 2003).

There is an increasing pressure on healthcare professionals to ensure that their practice is based on evidence from good quality research. Despite compelling research evidence, majority of maternal care providers still use episiotomy liberally for different reasons. Women themselves may not be aware of the harm caused by episiotomies and their lack of benefit while providers

may not obtain women's informed consent or informed refusal for the procedures (Vishwanathan et al 2005).

### 1.1.1 Major issues that were arising from the problem statement.

- The major issues included:-
- Limited access to evidence based information on current literature
- Lack of specific documentation on the type, rate and rationale for episiotomy performed
- Guidelines on evidence based information on episiotomy exist in other facilities but it was to be established in PMH.
- High HIV/AIDS prevalence among women population (Liljestrand, 2003). The rate of HIV positive patients receiving episiotomy was to be established in PMH.

## 1.2 Purpose

The purpose of this study was to evaluate how evidence based practice influenced midwives' decisions on indications of episiotomy.

## 1.3 Research question

Does evidence based practice influence midwives' decision on performing an episiotomy?

## 1.4 Main objective

The study was aimed to evaluate the influence of evidence based practice of midwives on episiotomy in Pumwani Maternity hospital. To achieve this objective, the research was guided by the specific objectives below:

### 1.5.1 Specific objectives

- To determine the prevalent type of episiotomy at PMH
- To identify sources of evidence based information on current literature for the midwives on episiotomy.
- To establish the criteria influencing the decision on episiotomy

- To establish usage of evidence based approach.
- To identify the barriers to evidence based knowledge, practice and attitude on episiotomy
- To establish the existing guidelines on evidence based practice of episiotomy
- To determine the role of the administrators in PMH in enforcing evidence based practice of episiotomy.
- To establish the rate of episiotomy among the patients with HIV/AIDS at PMH

## 1.7 Theoretical framework

Many health care facilities have strongly advocated for application of health promotion in all aspects of nursing care practice (Whitehead, 2006). Practicing nurses are in the best position to identify and change practices to improve patient outcome. This health promotion model (HPM) guided the midwives in identifying and implementing evidence based nursing practices to improve childbirth outcomes.

### 1.7.1 Pender's Heath Promotion Model (HPM) Per Pender (1996)

Assumptions and theoretical propositions of the health promotion model (HPM) were used to guide the study. The HPM is based on the assumptions which reflect both nursing and behavioral science perspectives that a person seek to create conditions of living through which they can express their unique human health potential. Persons have the capacity for reflective self-awareness, including assessment of their own competencies. These enables them to value growth in directions viewed as positive and attempt to achieve a personally acceptable balance between change and stability.

Individuals seek to actively regulate their own behavior and in all their biopsychosocial complexity interact with the environment, progressively transforming the environment and being transformed over time. HPM emphasizes that health professionals constitute a part of the interpersonal environment, which exerts influence on persons throughout their lifespan. Self-initiated reconfiguration of person-environment interactive patterns is essential to behavior change.

Theoretical statements derived from the model provide a basis for investigative work on health behaviors. HPM is based on the theoretical propositions that indicate the fact that prior behavior inherited and acquired characteristics influence beliefs, affect, and enactment of health-promoting behavior. The persons commit to engage in behaviors from which they anticipate to derive personally valued benefits. There are perceived constrains to commitment to action, a mediator of behavior as well as actual behaviour.

Health promotion model lays a foundation for the midwives to know that perceived competence or self-efficacy to execute a given behavior increases the likelihood of commitment to actual performance of evidence base practice. Positive affect toward a behavior results in greater perceived self-efficacy. This can result in greater perceived self-efficacy leading to fewer perceived barriers to a specific health behavior. When positive emotions or affect are associated with a behavior, the probability of commitment and action is increased.

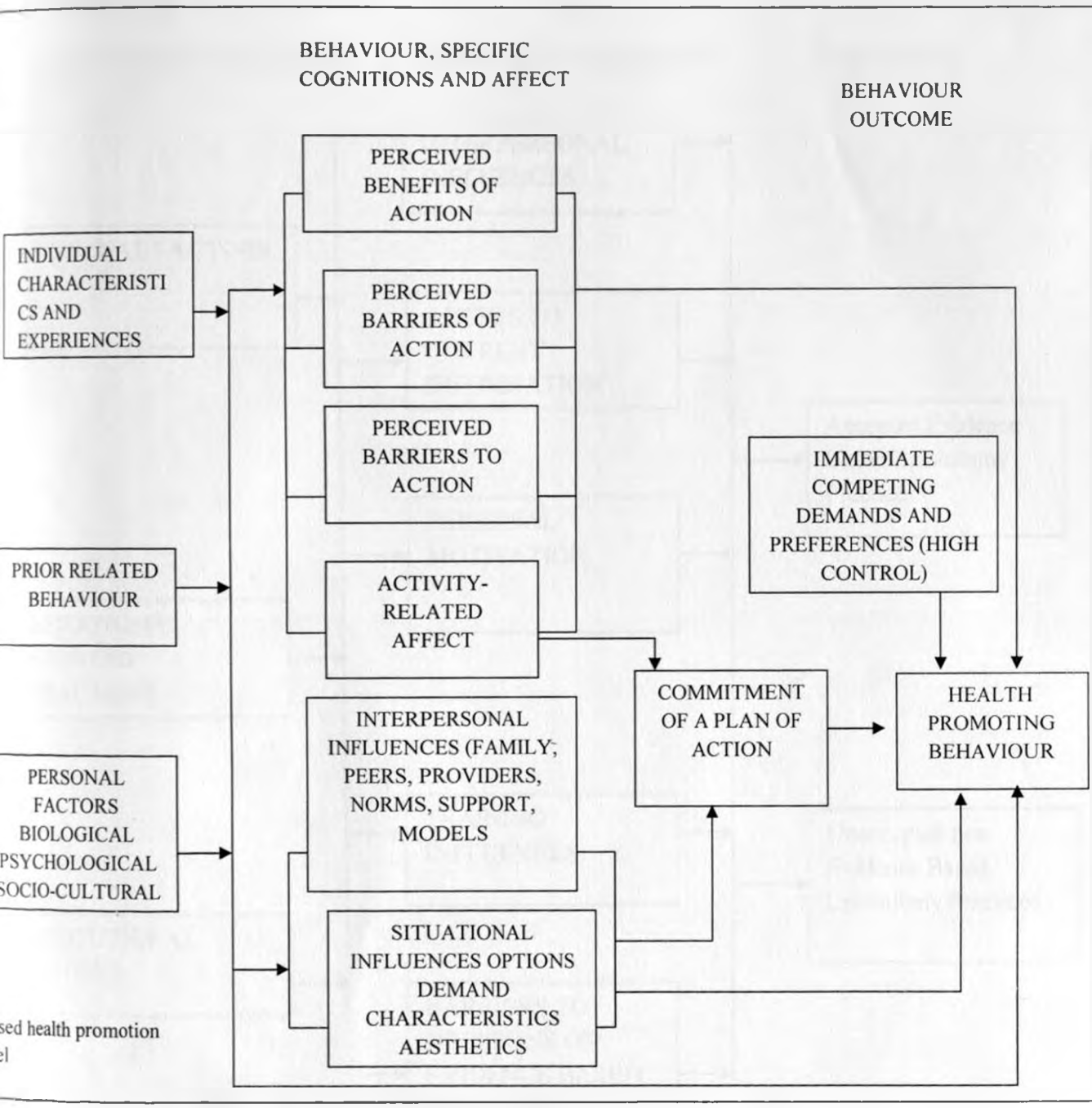
Interpersonal influence plays an important role in encouraging the person to commit to and engage in health-promoting behaviors if significant others model the behavior, expect the behavior to occur, and provide assistance and support to enable the behavior. Positive professional relationships and situational influences in the external environment, influence commitment to an adaptation of new concepts in the dynamic health care system.

Greater commitment by the midwives to evidence based practice of episiotomy without other competing demands, will more likely lead to achievement of health-promoting behaviors that will be sustainable over time. This is achieved through modification of cognitions, affect, and the interpersonal and physical environment that will create incentives for health actions.

Health care setting is the best avenue in promoting health and preventing illnesses. Health promotion and disease prevention can easily be carried out by the midwives compared to the programs that aim to cure disease conditions. Therefore, HPM model can be used as a basis for restructuring nursing protocols and interventions.

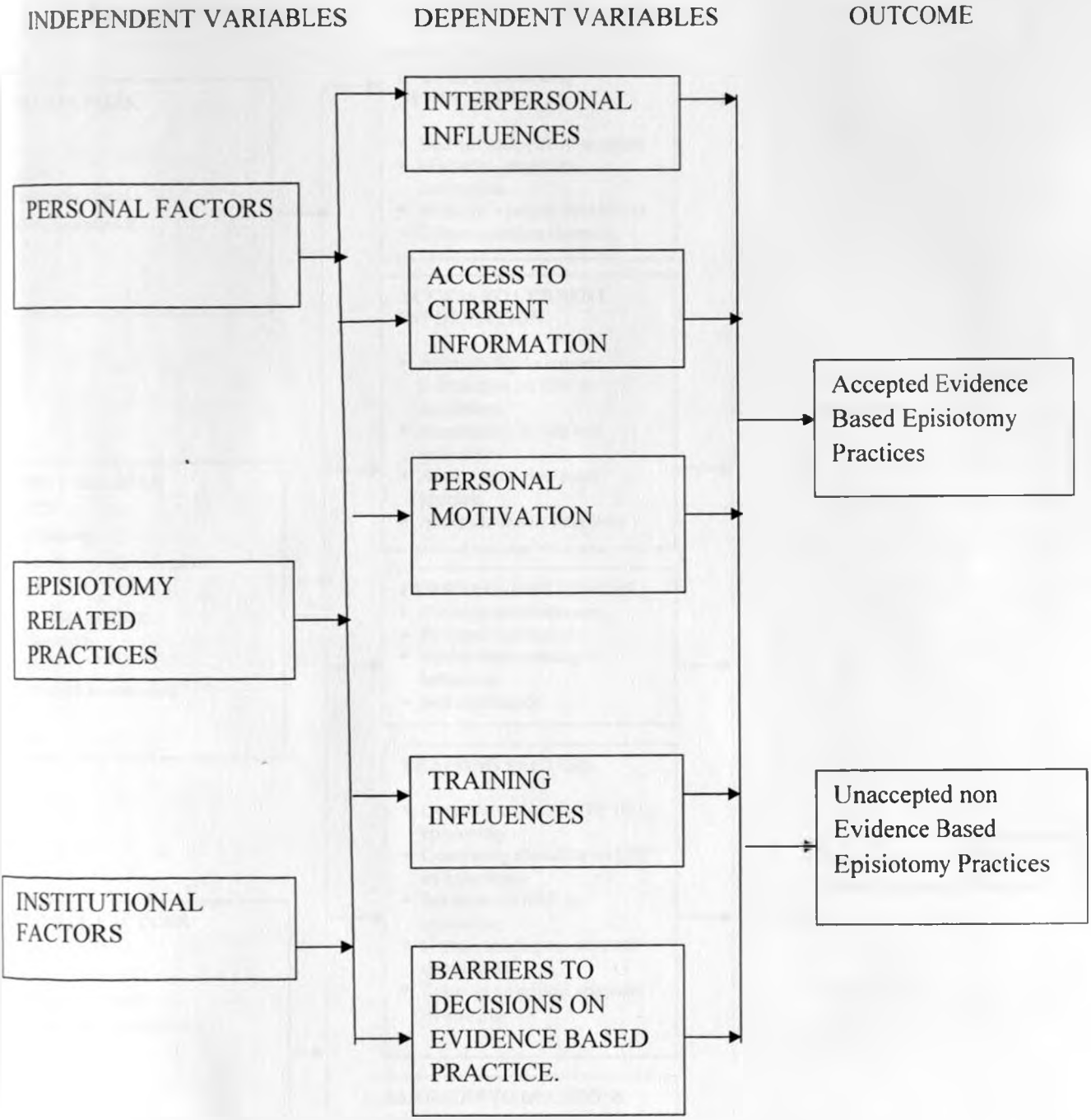
**Figure 1: Theoretic** Fig. 1: Theoretical framework

Pender's Health Promotion model



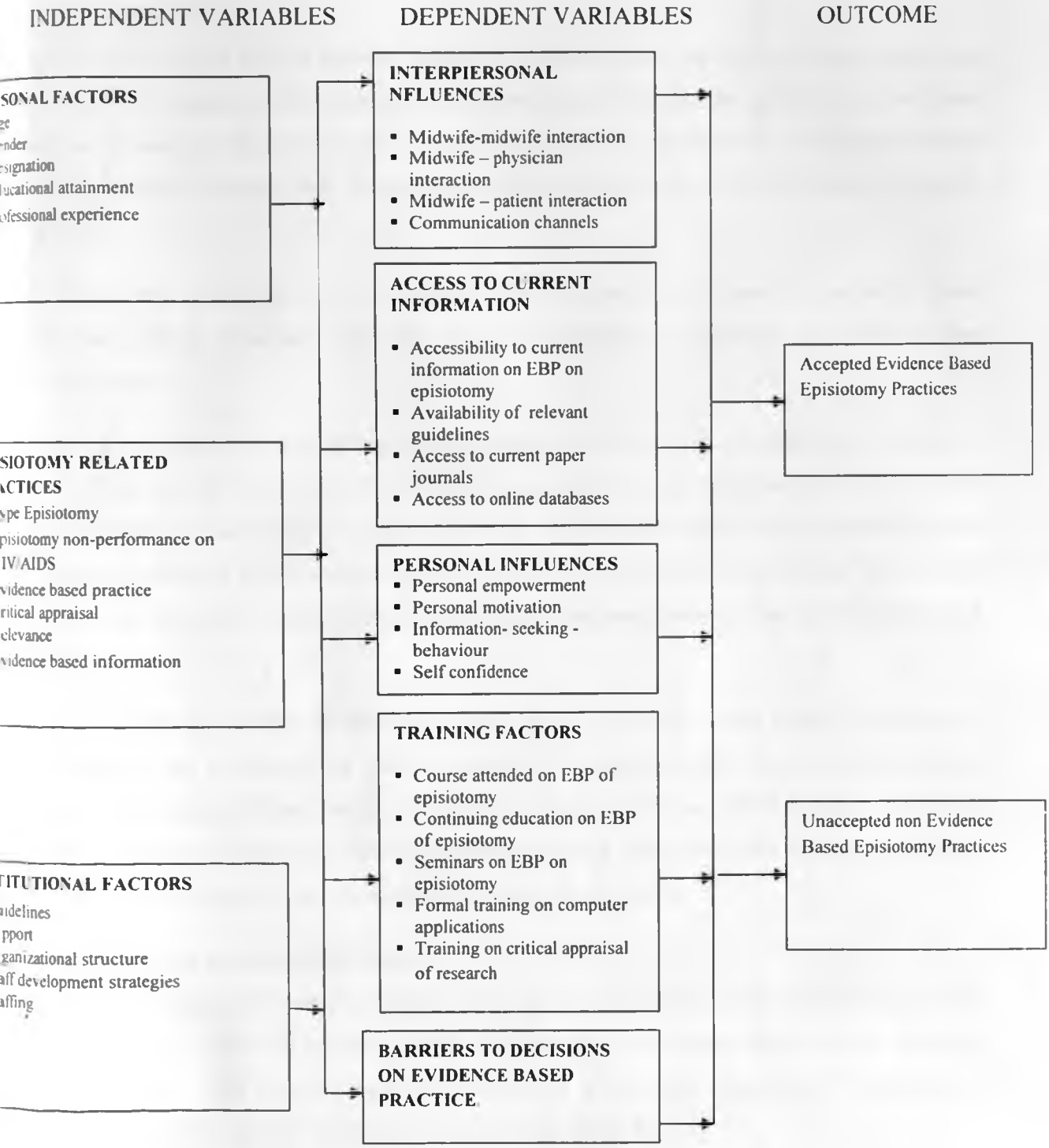
## 1.8 CONCEPTUAL FRAMEWORK

Fig: 2 Conceptual framework on influence of evidence based practice of episiotomy on the midwives.



## 1.9 OPERATIONAL FRAMEWORK

Fig: 3 Operational framework on influence of evidence based practice of episiotomy on the midwives.



The operational framework as illustrated by figure 3 above show the interaction of the independent and dependent variables that results to either accepted or unaccepted evidence based episiotomy practice.

## 1.10 Justification

Episiotomy does not entirely prevent damage to the pelvic floor, and more severe damage may result from an extension of the episiotomy (McCandlish, 2001). Midline episiotomy is associated with an increase of third and fourth- degree tears, with 12% likelihood to extend into the anal sphincter when compared with mediolateral episiotomy (Heit et al, 2006; Sultan & Fernado, 2004).

Restricted use of episiotomy is associated with reduced risk of posterior perineal trauma (Hayman, 2005). Therefore, restricted use of episiotomy is important in reducing these complications.

Based on extensive search of information on evidence based practice of episiotomy in Kenya, it was evident that not much has been done in Kenya on the same. Considering the HIV/AIDS epidemic still growing rapidly in many countries, and with the most stricken countries having more than one-third of women giving birth being HIV infected, both protection of the health workers and the risk of vertical transmission from episiotomy must be considered (Liljestrand, 2003).

It is clear from the nursing literature that there are a number of factors which can impede or facilitate the use of research in clinical practice. It is important that these are identified and addressed, if evidence-based practice is to become a reality (Paraoo, 2000). Hodnett et al (1996) noted that there are many gaps between research evidence and intrapartum nursing practice and therefore, there is need to link research and practice of midwifery.

## 1.11 Expected benefits of the study

The study findings will be used to develop and improve guidelines on evidence based episiotomy practice which in turn will enhance a better understanding of evidence based practice. Evidence based practice will improve decision making in performing episiotomy. Reduction of episiotomies performed will reduce the risks associated with them.

The patients will benefit from reduced incidences of episiotomy performed which enables them to have fewer complications which could result from perineal traumas. This will reduce the cost incurred while managing the complications and bills from episiotomy services. The new mother after delivery will be in a better psychological and physical state to bond with the newborn which in turn will bring better post partum outcome.

Midwives will benefit from the research findings by embracing more the concept of evidence based nursing practice. This will lead to improved clinical practice, the facility will enjoy a better reputation gained for the quality of care provided. While the cost of services offered will be low and there will less complications after delivery and less time managing these complications.

The process of the research study will be a good learning experience to the researcher because through the extensive search of literature, and research findings there is a lot of knowledge gained in the process. The researcher will have a good experience on conduct of research through active participation in the study process. The study findings will be published to promote accessibility to health care practitioners to promote a better understanding on evidence based practice of episiotomy and to stimulate further research on related issues.

# CHAPTER TWO: LITERATURE REVIEW

## 2.0 Introduction

Episiotomy is a surgical cut that is often performed just before birth to enlarge the opening of the vagina. Episiotomy was invented in Europe in 1742 as a procedure that could assist obstetricians in difficult vaginal delivery. It was not until 1920 when deliveries started to move from home to hospital that episiotomy started to become routine (Repke, 2003).

The rationale for its use depends largely on the need to minimize the risks of severe, spontaneous, maternal trauma and to expedite the birth when there is evidence of foetal compromise. However, during a normal birth the indications for its use are few and the midwife should use her skills to avoid this intervention if at all possible (Fraser et al, 2006).

Despite compelling research evidence, majority of maternal care providers still use this procedure liberally. Women themselves may not be aware of the harm caused by episiotomies and their lack of benefit while providers may not obtain women's informed consent or informed refusal for the procedures ( Vishwanathan et al 2005 ).

Currently, the evidence does not support changing practice, but rather building and fortifying systems of knowing the patient, identifying problems early, and communicating and managing changes in patient status in a timely manner (Pipe et al, 2005).

Enkin (1989) defines the science involved in care during pregnancy thus: "The extent to which care is based on evidence that is effective and that which achieves the desired effect. The great challenge that face every midwife in today's practice is how to utilize the science when appropriate and in ways that do not undermine the complex physiological and sociological aspects of childbirth".

### 2.1.0 Types of episiotomy

### 2.1.1 Risks and benefits of episiotomy

Woolley (1995) critically reviewed professional literature material published between 1980 and 1983 on risks and benefits of episiotomy. He highlighted the evidence accumulated during the study period. The benefits include prevention of lacerations, prevention of pelvic floor relaxation, and prevention of foetal injury. The risks that he mentioned include blood loss, morbidity of anal sphincter damage, psychological consequences such dissatisfaction with child birth process, postpartum pain, dyspareunia, infection, frequency of perineal damage. Furthermore, episiotomy increases risks to birth attendants through increased blood exposure and needle stick injuries during repair

A study done by Hodnett et al (1996) in twenty hospitals in Toronto to evaluate the effectiveness of research based nursing care revealed gaps such as knowledge in research evidence and intrapartum nursing practice. It is therefore important for the midwives to have strategies in place to promote research based nursing care.

The two most common types of episiotomy are the midline episiotomy and the medio-lateral episiotomy. Midline episiotomy is by far more common in United States, while medio-lateral episiotomies are more common in other parts of the world (Lingen 2006). A midline episiotomy refers to an episiotomy where the incision of the vaginal opening is directly in the midline, straight down toward the anus. The advantages of a midline episiotomy include easy repair and improved healing. This type is also less painful and is less likely to result in long-term tenderness or problems with pain during intercourse. There is often less blood loss with a midline episiotomy (Lingen 2006).

The main disadvantage of a midline episiotomy is the likelihood for this type of incision to extend and involve the anal sphincter or the lining of the rectum. When this happens, injury to the sphincter can result in long-term problems, such as fecal incontinence or the development of a recto-vaginal fistula (Lingen 2006; Fernando & Sultan, 2004)

A medio-lateral episiotomy begins at the vaginal opening in the midline with the incision directed toward the right or left buttocks at a 45-degree angle. The main advantage of the medio-lateral episiotomy is that it is less likely to extend into or involve the anal sphincter and the rectum. Disadvantages of the medio-lateral episiotomy are significant and include increased blood loss, increased pain, difficult to repair, and an increased risk of long-term discomfort, especially during intercourse (Lingen 2006; Fernando & Sultan, 2004) The severity or extent of a vaginal laceration or episiotomy is often referred to in degree of tear (Lingen, 2006)

First Degree- The smallest or the simplest tear or episiotomy extending only through the vaginal mucosa. It does not involve the underlying tissues.

Second Degree-This is the most common type of tear or episiotomy. It extends through the vaginal mucosa and into the sub mucosal tissues, but does not involve the rectal sphincter or mucosa.

Third Degree-A third degree tear or episiotomy involves the vaginal mucosa, sub mucosal tissues, and a partial or complete transection of the anal sphincter muscle.

Fourth Degree-The most severe type of tear or episiotomy includes incision of the vaginal mucosa, sub mucosal tissues, and anal sphincter, and it also involves of the lining of the rectum.

The severity of the episiotomy is directly associated with the seriousness of postpartum and long-term complications. As the degree of the tear or episiotomy increases, there is more potential for infection, postpartum pain, and other complications, such as leakage of stool and development of recto-vaginal fistula (Lingen, 2006; Eason, 2002).

## 2.2 Attitudes towards episiotomy

Episiotomy at the time of delivery is common and its practice patterns vary widely, as do professional opinion about maternal risks and benefits associated with routine use. This practice

has been used for many decades in the belief that it offers benefits to mothers (Viswanathan et al 2005).

An interview done on ten Midwives from Zambia , Malawi, Nigeria, Ghana, Kenya and Nepal who were studying in Liverpool, England , showed that none had ever considered the matter of whether routine episiotomy could do more harm than good. Most indicated that health professionals perform episiotomy routinely to a primigravidae to prevent third degree perineal tears. Some are performed to give midwives and medical students opportunity to practice the procedure, however, no sufficient quantitative data to support these anecdotes (Maduma et al, 1998). The information provided by the ten midwives from different countries is subjective and may not be based on evidence from best practice. This study could have involved a focus group discussion to elicit in-depth information from ten midwives from each country and compare the emerging themes using content analysis to bring out common themes.

**2.3 Knowledge on episiotomy**

Many studies have been done globally on episiotomy. Among them is a study carried out in 65 labor wards in Sweden which showed that the mean incidence of episiotomy for the whole country was 30% with a wide variation (9-77%) from hospital to hospital (Althabe et al, 2008). The study was compared to another study done in Port Harcourt Nigeria by Enyindah et al (2007) which showed that the episiotomy rate in 4720 vaginal deliveries during the period of study was 39.1% in multiparas and 77% in primigravidae. In Ethiopia, a study showed that among 672 Mothers, 270 (40.2%) had episiotomy; of these 208 (75.2%) were primigravidae and multiparas were 21.3% (Kiros and Lakew, 2006).

A study done by Viswanathan et al (2005) in 18 hospitals in Philadelphia in 1990 that used a vigorous systems review found that routine episiotomy offers mothers no benefits and it is associated with harms. It was found that routine episiotomy increased the need for stitching, experience of pain and tenderness, increased healing period, likelihood of leaking stool or gas (bowel incontinence) and pain with intercourse. The research further identified some concerns about traumas that extended into or through the anal muscle to include pain and discomfort, prolonged healing, infection, pain with intercourse bowel incontinence, decreased sexual function, and pressure for cesarean in future births. This study done in 18 hospitals provides

more credibility to the results of this study and thus show that routine episiotomy offers no benefits and is associated with harms. However, this is a reflection of one state in the USA. The study results may be different if the same study would be replicated in a different region such as Africa.

In Kenya, little has been done to explore the rates of routine or restrictive episiotomy. This was noted based on extensive search on the issue which provided very limited information on episiotomy. However a study conducted in clinics and hospitals in Meru district showed that the most common minor operation in Kenyan hospitals were episiotomy, tooth extraction, wound suture, and incision and drainage. These operations are rarely recorded and reported systematically, and thus rates and patterns are poorly known (Nordberg et al, 2001).

### 2.4 Practice with respect to episiotomy

A systematic review conducted by Sackett et al (1996) revealed that practice of evidence- based medicine means integrating individual clinical expertise with the best available external clinical evidence. Evidence-based practice is widely promoted, but actual obstetric practice is often not evidence-informed. Research has shown large practice variations across facilities in the same country in China, South Africa and the UK, on unnecessary obstetric procedures during normal birth are common and may actually be increasing in some countries (Althabe et al 2002).

Increased numbers of reliable summaries of scientific evidence globally has improved knowledge, but there remains a shortfall in uptake and use of this information. Obstetricians continue to implement practices such as routine episiotomy that have been shown to be harmful, and fail to implement those with demonstrable benefit (Smith et al 2004).

Fraser, et al (2006) noted the importance of the Better Birth Initiative (BBI). The initiative is a change program which has an overall goal to improve the quality of care rendered to the expectant women and their families by eliminating procedures that can be harmful, unpleasant or uncomfortable to the woman. This initiative supports the implementation of procedures and interventions that are based on scientific evidence. Better birth initiative focuses on a set of standards that aim to improve the quality and humanity of obstetric care.

The initiative has four principles: i.e.

- Humanity- women are to be treated with respect.
- Benefit- care based on the available evidence
- Commitment –health professionals committed to improving care.
- Action – effective to change current practices.

Smith et al (2004) conducted research on the use of a focused change program- the BBI, to influence obstetric practice of 10 hospitals in Gauteng, South Africa. The findings showed some important improvements in practice following the implementation of the BBI. For instance, providers at some sites reduced the use of enemas, shaving and episiotomy, and increased use of oral fluids and companionship during labour. The study further suggested that an interactive approach to implementing evidence-based practice can influence health professionals' decisions to change practice. Finally they noted that good working relationship and enthusiastic staff are central to effective change.

### 2.5 Midwives role in Evidence based practice of episiotomy

Changing long-standing clinical practice is difficult (Leeman et al 2006). Time constrains and increasing nursing care needs are inherent in clinical practice. Nurses face a real challenge when translating best evidence into clinical practice. For example, the relevant research-based databases are not comprehensive in many areas of nursing practice. Also, there is an ongoing explosion in the amount and type of information available (Pipe et al, 2005).

Midwives have a role in the achievements of safe motherhood in their countries. They carry a huge responsibility in helping women and their families through the pregnancy and childbirth process (Kwast, 1990). Enkin (1989) defines the science involved in the care during pregnancy as the extent to which care is based on evidence that is effective and that achieves the desired effect. He added that the great challenge that face every midwife in today's practice is how to utilize the science when appropriate and in ways that do not undermine the complex physiological and sociological aspects of childbirth.

A need exists for accurate and systematic ways to make inferences from the research findings and how they apply to individual patients. Interventions must be adapted to translate evidence-based approaches to new cultures and contexts. Improving information access, use of role models, skill development and improved resources and support may be effective ways to overcome barriers to change of practice (Leeman et al, 2006).

Despite efforts within the nursing profession to promote evidence-based practice, the way that researchers report their findings in journals may not provide information that healthcare providers can use in their clinical care. Providers tend to base their decisions to implement a new intervention on three characteristics: the advantage of the new intervention over current practice, its compatibility with the practice setting and population, and its complexity (Leeman et al 2006)

Belizan et al (2007) in their study noted that many hospitals have not translated their clinical practices to reflect research findings. Barriers noted included limited access to new knowledge, limited time and physical resources and attitudes, resistant to change as factors limiting the adoption of new practices in such hospitals. Lack of skills in performing new practices, lack of medical resources and explicit guidelines and a perceived need to practice defensive medicine were part of the hindrances.

The rationale for episiotomy use depends largely on the need to minimize the risks of severe spontaneous maternal trauma and to expedite the birth when there is evidence of foetal compromise. However, during a normal birth the indications for its use are few and the midwife should use her skills to avoid this intervention if at all possible (Fraser et al 2006). Despite the clear rationale for its use, it is noted that the rate of routine episiotomy is still significantly higher than the recommended practice for many countries (Caroli and Belizan 2001).

From the literature review it is evident episiotomy practice is still carried out despite compelling evidence that discredit its use. This shows that there is need for the midwives to update their knowledge current information on evidence based practice in order to translate the information into clinical practice. This will improve service provision which in turn translate to better maternal-child outcomes.

# CHAPTER THREE: METHODS AND MATERIALS

## 3.0 Study design

This was a cross-sectional qualitative and quantitative descriptive study that sort to evaluate evidence based practice episiotomy by the midwives. Content analysis was used for qualitative data.

## 3.1 Study area

The study was conducted in Pumwani Maternity Hospital labour ward. Pumwani Maternity Hospital (PMH) was founded in 1926 as the lady Griggs welfare. The Nairobi city council took over the hospital's management in 1944. PMH is an obstetric hospital for delivering expectant mothers and provides post natal, family planning and Kenya Expanded Program on Immunization services. It also provides other medical services.

An average of 60 babies are delivered daily with the number growing over the years to about 27,000 a year. The hospital has a bed capacity of 350.

PMH has a school of midwifery within the hospital which trains Kenya Registered Midwives as well as Kenya Enrolled Midwives in accordance with the syllabus laid down by the Nursing Council of Kenya. PMH is one of the largest maternity hospitals in Kenya and a clinical teaching setting for medical training schools including the university of Nairobi department of Obstetrics and gynaecology, nursing and midwifery.

## 3.2 Study population

The study population included qualified midwives working in PMH labour ward. There was a total of 58 midwives working in the labour ward. Seven midwives are scheduled for every shift i.e. morning, evening and night shifts. Ten midwives were scheduled to go on leave during the month when data collection was undertaken therefore; the study population remained at 48 midwives.

## 3.3 Inclusion criteria

The research participant who were included in the study fulfilled all the inclusion criteria as follows

- All practicing midwives at PMH labour ward.
- Qualified midwives in PMH Labour ward
- The midwives who consented to participate
- The midwives who were on duty in labour ward during data collection period.
- Midwives who were above eighteen years.

## 3.4 Exclusion criteria

Potential participants who had any of the following characteristics were excluded from the study i.e.

- Midwives who were not practicing at PMH labour ward
- Midwives who were not physically present or working in labour ward during data collection
- Midwives who did not consent to participate.

## 3.5 Sample size determination

The sample size was determined using the following formula By Fisher (1998)

$$n = \frac{Z^2 p (1-p)}{d^2}$$

Where,

n = desired sample size

Z = 95% confidence interval (1.96)

P = estimated proportion of nurses who perform episiotomy using evidence based indications

There was no estimate available from the literature therefore, 50% was used as recommended by Fisher et al (1998).

d = the degree of precision.

When the numbers are substituted in the formula hence:

$$n = \frac{(1.96)^2 (0.50) (0.50)}{(0.05)^2} = 384.16$$

Because the study population of 48 midwives is less than 10,000, the alternative formula was used as below.

Where,

nf = Desired sample population (when population is less than 10,000)

n = Desired sample size (when population is more than 10,000)

N = The estimate of the population size.

$$nf = \frac{n}{1 + n/N}$$

$$= 384.16/[1+384.16/48]$$

$$=384.16/8.02$$

$$=47.87$$

A total of 48 midwives PMH labour ward were included.

### 3.6 Sampling method

A purposive sampling of all the midwives in PMH labour ward was done. All the midwives who met the inclusion criteria in the labour ward were included because after excluding those who were on leave the number available corresponded to the calculated sample size (48).

### 3.7 Sample interval

Sample interval n = Total study population

Sample size

= Total number of consenting midwives

Sample size

In total the number of midwives in labour ward was 48.

Sample interval (n) = Total number of consenting midwives

n

Estimated sample interval = 48/384.16

n = 0.124

Therefore; the researcher included all midwives in PMH labour ward.

### 3.8 Study instruments

Self administered semi structured questionnaires were used. The midwives' questionnaires had closed and open ended questions to elicit qualitative and quantitative data. The focus group discussion guide and the key informants' interview guide had open ended questions. The key researcher orchestrated the discussion and the proceedings were tape recorded for later coding and analysis. The research team helped the respondents to clarify the issues on the questionnaires.

### 3.9 Pre testing of instruments

The instruments were pre-tested among midwives working at Kenyatta National Hospital labour ward. The results of the pre-test were used to sharpen study tools for reliability and validity. The results are not part of the study findings.

### 3.10 Key variables

**Independent variables**: socio-demographic factors, episiotomy related practices and institutional factors.

**Dependent variables**: Interpersonal influences, access to current information, personal influences, training factors, and barriers to decision on evidence based practice. The influence of independent variables on the dependent variables results to accepted or unaccepted evidence based episiotomy practices.

#### 3.10.1 Definition of key variables

- **Socio-demographics**: Selected population characteristics (gender, age, designation, educational attainment and professional experience).
- **Institutional factors**: Overall institutional actions or omissions that influence the midwives' evidence based practices.
- **Interpersonal influences**: Outcomes from midwife's interactions with members of the health care team
- **Access to current information**: Ability of the midwife to readily access the evidence based information on episiotomy either from the web, hospital library, or in the clinical area.
- **Personal influences**: Individual's self-drive to keep abreast on evidence based practices.
- **Training factors**: All the formal and informal ways of acquiring knowledge on evidence based information on episiotomy.
- **Episiotomy related practices**: All the existing episiotomy practices that are undertaken by the midwives.

- **Barriers to decisions on evidence based practice**. All constraints that influence all the other variables to affect evidence based practices.

### 3.11 Selection and training of research assistants

One registered nurse with midwifery background was recruited and trained for a day before commencement of the study to be familiarized her with the research tools and methods. The assistant was given the study tools ahead of time prior to the training day. The research team critically reviewed the contents of the questionnaire, interview guide and FGD guide, the study objectives and the consent form to ensure that the assistant was well conversant with the instructions on the questionnaire and the consent forms. The research team discussed privacy and confidentiality of information provided by the respondents.

### 3.12 Methods used to control confounders.

Questionnaires were pre-tested in KNH labour ward, a location different from the actual study location. The research assistant was trained before commencement of the study. Filled questionnaires were checked for completeness and consistency. All data obtained was coded appropriately.

### 3.13 Data collection, cleaning, and entry

The research assistant assisted in disbursing the questionnaires and collecting filled ones. Questionnaires filled by the respondents were collected and checked for completeness and consistency by the principal researcher. Data from the completed questionnaires were entered using SPSS version 16 with the help of biostatistician and later analyzed at the end of the study. More data were collected through focus group discussion in June. The researcher chose focus group because she wanted the best method to access the experiences of midwives. The focus group is a special type of group in terms of purpose, size, composition and procedures. A focus group is typically composed of not more than 10 participants who are selected because they have certain characteristics in common that relate to the topic under investigation (Krueger, 1994). Focus groups are defined as:- "a semi-structured group session, moderated by a group leader, held in an informal setting, for the purpose of collecting informal setting, for the purpose of collecting information on a designated topic" (Carey and Smith, 1994, P. 124).

Field notes and tape recordings were analyzed. Each transcript was read word by word several times. The researcher used content analysis (Holsti, 1969) first to understand what it is that the participants were saying. Content analysis is defined as "any technique for making inferences by objectively and systematically identifying specific characteristics of messages" (Holsti. 1969). Key words and phases were highlighted in the text and codes were written on the sight side of the page. The researcher grouped the statements to like statements from the codes recorded. This was the second phase of analysis. Finally the researcher re-grouped the statements narrowing them to themes. These clustered ideas (which are referred to as themes) then became units of structural incoming. These meanings intended in what has been observed and heard (Strubert & Carpenter, 1999). Some themes differed from the transcript but uniformity was ensured in theme terms throughout all transcripts. The tape recorded information was transcribed, coded and analyzed according to themes. All the questionnaires which did not conform to the instructions were discarded.

### 3.14 Data analysis and presentation

Data was coded according to themes from the variables with exhaustive code categories. Data were summarized using inferential and descriptive statistics. Data input and analysis was done using SPSS version 16. Relationships among some variables were measured using correlation coefficient and CHI square. Data were presented in from of charts, tables and frequency graphs and in narrative form.

### 3.15 Ethical considerations

Before establishing contact with the potential participants, the proposal was submitted to Kenyatta National Hospital (Ref: KNH/UON-ERC/A/219) and Pumwani Maternity Hospital (Ref: PMH/DMOH/98/09) ethical committees for approval. Permission was granted by the ministry of education, science and technology to conduct research (permit No. NCST/5/002/R/433/5). In compliance with the regulation regard to research for health, informed consent was obtained individually after explaining to the participants the purpose of the research. Confidentiality and privacy was maintained by locking up all the study information provided by the participants. The names of participants were not documented on the questionnaires to ensure anonymity. Key informant's interview was done individually in a private room. Participation was purely voluntary and no one was obliged to answer any question they were not comfortable with.

### 3.16 Study limitation

The study was conducted in an urban hospital set up and the findings may not be generalized to the hospitals and clinics in a different set up. The hospital serves a majority of Somali population who practice female genital mutilation. This practice influenced the decision made by the midwives before performing an episiotomy. The practice may not be common in other parts of the city and the results of the study may not be applicable in that set up. Majority of the participants consented to participate but a few of them did not complete the questionnaires appropriately. The researcher held two forums to accomplish the FGD interviews. Data collection was done in a time span of three weeks to achieve the required sample because of staffing rotation. This may have biased the responses if the midwives shared the information with the others during the process

### 3.17 Dissemination plan

Research report will be provided through feedback to the PMH staff. Findings will be published and availed at the library.

# CHAPTER FOUR: RESEARCH FINDINGS

## 4.0 Introduction

This chapter displays the findings from the analyzed data obtained from the respondents on the influence of evidenced based practice of episiotomy by the Midwives at Pumwani Maternity Hospitals (PMH) labour ward. The results were obtained from the responses from the questionnaires, FGD and from the key informants' interviews.

## 4.1 DEMOGRAPHIC INFORMATION

**Table 1: Demographic information**

| **Gender** | | |
|---|---|---|
| | **Frequency** | **Percent** |
| Male | 4 | 11.4 |
| Female | 31 | 88.6 |
| Total | **35** | **100** |
| **Age** | | |
| 18-26 | 1 | 2.9 |
| 27-35 | 20 | 57.1 |
| 36-45 | 11 | 31.4 |
| Above 45 | 3 | 8.6 |
| | **35** | **100** |

A total of 35 respondents gave their responses in relation to socio- demographic information. 11.4% (4) of the respondents were Male, while 88.6 %( 31) of the respondents were female. In addition, 22.9 % (8) of the respondents fall in the age bracket of between 18- 26 years, 57.1% (20) were between 27- 35 years of age. 31.3 % (11) were between 36- 45 years and only 8.6%

(3) of the respondents were above the age of 45 years. It is evident that majority of the respondents were female midwives. The category with between 27 years to 35 yrs had 57.1% (20) this being the highest number of respondents.

## 4.2 MIDWIVES EXPERIENCE AND EDUCATION

**Table 2: Midwives experience and education**

| Training Qualifications | | |
|---|---|---|
| **Highest education level** | **Frequency** | **Percent** |
| KRCHN | 20 | 57.1% |
| KRM | 12 | 34.3% |
| ICN | 2 | 5.7% |
| BScN | 1 | 2.9% |
| PhD | Nil | 0.0% |
| MScN | Nil | 0.0% |
| **Total** | **35** | **100%** |

Training qualifications and Duration of basic training were part of the questions with a total of 35 respondents. In this group 57.1% (20) of the respondents have trained as KRCHN, 34.3% (12) are KRM, 5.7% (2) of the respondents have trained in ICN and only 2.9% (1) of the respondents have qualifications in BScN. There were no PhD and MScN prepared midwives in the group.

In relation to duration of basic training, 77.1% (27) of the respondents took 2 to 3 years, 14.3% (5) took 5 years, 5.7% (2) of the respondents gave no response to this and only 2.9 % (1) of the respondents had a training lasting for1 year.

**Table 3: Years of service Pumwani Maternity Hospital**

| Professional experience | | |
|---|---|---|
| **Years of practice** | **Frequency** | **Percent** |
| 5 to 10 years Below 1 year | 19 | 54.3% |
| Over 10 years | 14 | 40% |
| 1 to 4 years | 2 | 5.7% |
| | Nil | nil |
| Total | **35** | **100%** |

54.3% (19) had practiced midwifery for between 5 to 9 years, 40% (14) for over 10 years, while 5.7% (2) had practiced for between 1 to 4 years. **(P value 0.003)**

**Table 4: Duration of working**

| Duration Working at Pumwani labour Ward | | |
|---|---|---|
| **Years** | **frequency** | **percentage** |
| 1 to 4 years | 16 | 45.7% |
| 5 to 9 years | 12 | 34.3% |
| Over 10 years | 3 | 8.6% |
| Below 1 yr | 4 | 11.4% |
| **Total** | **35** | **100%** |

45.7% (16) of the respondents reported to have worked in PMH between 1 to 4 years. 34.3% (12) for 5 to 9 years, and 11.4% (4) for less than 1 year and only 8.6% (3) of them reported to have worked for more than 10 years with a **Mean of (2.6) and P value (0.207)**

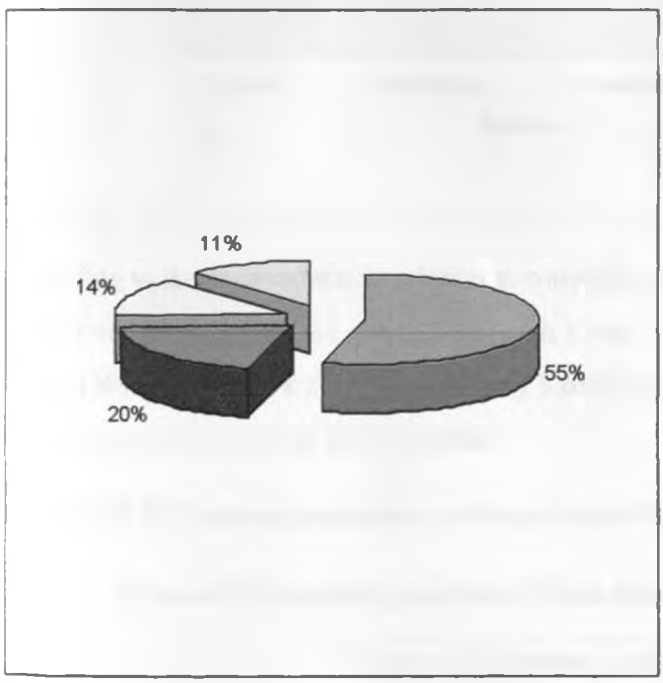
**Motivation to working in the Labor ward**

Motivation in relation to working in the labor ward are given in figure 1 above, thus 11.4% (4) of the midwives responded to personal choice, while 88.6 % ( 31) of the respondents were deployed to work in the Labour ward.

**Training on evidence based episiotomy practice**

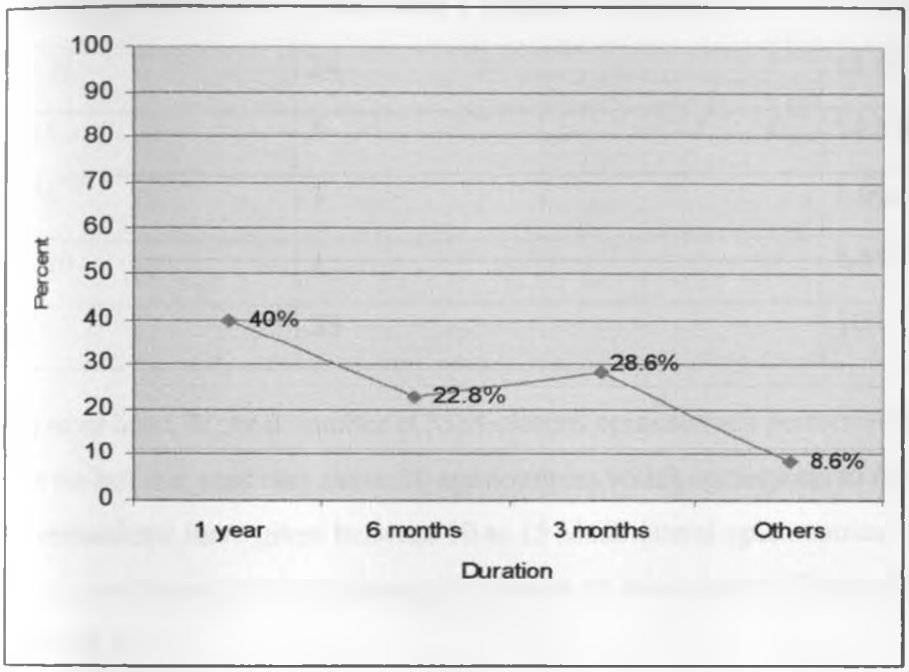
51.4% (18) of the respondents have not received specific training on EBP of episiotomy, while 48.6 % (17) of the respondents have.

**Figure 1: How the training was achieved**




Conceming how evidence based episiotomy practice training was achieved, 55% (19) of the respondents said they got their training in a nursing school, 20% (n=7) of them from in-service courses, and 14% (5) of them through their personal efforts, while only 11% (4) of the respondents got it through continuing Education at PMH.

**Figure 1: Duration of training time on evidence based practice on episiotomy.**




According to the respondents in relation to time taken to training on evidence based practice on episiotomy, 40% (14) of the respondents took 1 year, 22.8% (8) of the respondents 6 months, 28.6% (10) of them took 3 months and only 8.6% (3) of them responded to "other" which implies either none or less than 3 months.

**SECTION B. Current practice on evidence Based Practice on Episiotomy**

**Table 5: Types of Episiotomy practiced (From May 2008 to May 2009)**

| Type of Episiotomy preferred | | |
|---|---|---|
| **Type** | **Frequency** | **Percent** |
| Mediolateral | 30 | 85.7% |
| Midline | 5 | 14.3% |

Conceming preferred type of episiotomies, 85.7 % (30) of the respondents preferred mediolateral and only 14.3 % (5) of the respondents preferred midline episiotomy.

Table 6: **Mediolateral episiotomy in the last one year**

| Number of Mediolateral episiotomies given in the last 1 yr | | |
|---|---|---|
| **Number of episiotomies** | **Frequency ( number of midwives)** | **Percent** |
| Above 20 | 24 | 68.6% |
| 10 to 15 | 5 | 14.2% |
| 15 to 20 | 3 | 8.6% |
| Below 10 | 3 | 8.6% |
| **Total** | **35** | 100 |

On the other hand, highest number of Mediolateral episiotomies performed by a respondent in the last the last one year was above 20 episiotomies which correspond to 68.6 % (24). 14.3 % (5) of the respondents have given between 10 to 15 Mediolateral episiotomies 8.6 % (3) have given between 15 to 20 and 8.6 % (3) have given below 10 Mediolateral Episiotomies. The mean number was **1.7**

Table 7: **Number of Midline Episiotomies given, duration of time taken to repair And the number of Sutures used to repair Episiotomy**

| Number of Midline Episiotomies given | | |
|---|---|---|
| **Number** | **Frequency** | **Percent** |
| 10 to 15 | 12 | 34.3% |
| Below 10 | 9 | 25.7% |
| Other | 7 | 20% |
| 15-20 | 5 | 14.3% |
| Above 20 | 2 | 5.7% |
| **Total** | **35** | **100%** |

34.3% (12) of the respondents reported to have given between 10 to 15 midline episiotomies. 25.7% (9) of them below 10 Midline Episiotomies, and 20% (7) responded to others while 14.3

% (5) of them responded to15 to 20 Episiotomies. Only 5.7 % (2) of the respondents have given above 20 midline episiotomies.

**Table 8: Time taken to repair an episiotomy**

| Duration it takes to repair an Episiotomy | | |
|---|---|---|
| **minutes** | **Frequency** | **percent** |
| 5 to 10 | 22 | 62.9% |
| 2 to 4 | 9 | 25.7% |
| Over 10 | 3 | 8.65% |
| Under 1 | 1 | 2.9% |
| **Total** | **35** | **100%** |

After giving an episiotomy midwives are mandated to repair it promptly as soon as the maternal condition allows. In relation to the duration of time it takes to repair the episiotomy, 62.9% (22) of the respondents took between 5 to 10 minutes, 25.7% (9) of them took between 2 to 4minutes, and 8.65 % (3) took over 10minutes while only 2.9 % (1) of the respondents reported time less than 1minute. According to Pearson correlation, there is a positive correlation between midwifery experiences with the duration it takes to repair an episiotomy (correlation between number of years of experience and the duration of time it takes to repair an episiotomy: **(Correlation 0.790).**

Table 9: **Number of sutures**

| Number of Sutures used to repair Episiotomy. | | |
|---|---|---|
| **Number of sutures used** | **Frequency** | **Percent** |
| 1 | 24 | 68.6% |
| 2 | 8 | 22.9% |
| 3 | 2 | 5.7% |
| More than 3 | 1 | 2.9% |
| **Total** | **35** | **100%** |

In relation to the number of Sutures used to repair Episiotomy, 68.6 % ( 24) of the respondents used 1suture, 22.9% (8) of the respondents used 2 sutures, 5.7% (2) of the respondents said 3, and only 2.9 % ( 1) of the more than 3 Sutures. **P value is 0.117**

Table 10: **Descriptive statistics**

**Descriptive Statistics**

| | Mean | Std. Deviation | N |
|---|---|---|---|
| Years of practice as a midwife | 1.6571 | .59125 | 35 |
| Duration of basic training in yrs | 2.0000 | .65134 | 35 |
| Duration of time worked in Pumwani labour ward | 2.6000 | .81168 | 35 |
| Number of mediolateral episiotomies given in the last 1 year | 1.6286 | 1.03144 | 35 |
| Number of midline episiotomies having given | 3.4000 | 1.14275 | 35 |
| Duration of time it takes to repair an episiotomy | 2.7714 | .64561 | 35 |
| Number of sutures used on average to repair an episiotomy | 1.4286 | .73907 | 35 |

**Table 11: Assessment done before giving an Episiotomy**

| Midwives' responses | Frequency | Percent |
|---|---|---|
| Tightness of perineum | 12 | 24% |
| Put the patient in lithotomy position | 10 | 20% |
| Previous episiotomy | 7 | 14% |
| Poor maternal effort | 6 | 12% |
| FGM | 6 | 12% |
| Foetal head presentation | 5 | 10% |
| Whether the patient is roomy | 4 | 8% |
| **Total** | **50** | **100%** |

Decision to perform an episiotomy depends on prior or immediate midwives' assessment. The respondents listed down the assessment they carry out before giving an episiotomy and the percentages are thus; 24% (12) of the respondents do check for the tightness of the perineum and 20% (10) of them reported that they put the patient in lithotomy position and thus decide whether episiotomy is indicated. Further 10% (5) of the respondents do check the size of the foetal head presenting, 14% (7) of the respondents would determine if episiotomy was given in prior deliveries and 12% (6) of the respondent would base the decision on poor maternal effort. Patients who have had FGM influenced the decision of 12% (6) of the respondents. Only 8 % (4) of the respondents considered whether the patient was "roomy" before giving an episiotomy.

**Table 12: Reasons that Guide to giving an Episiotomy**

| Criteria | Frequency | Percent |
|---|---|---|
| Very tight perineum | 15 | 17.44% |
| Breech presentation | 11 | 12.79% |
| Premature labor | 10 | 11.62% |
| FGM | 9 | 10.46% |
| Deteriorating baby condition | 8 | 9.30% |
| Hastening 2nd stage | 7 | 8.13% |
| Big baby | 6 | 6.97% |
| Foetal distress | 5 | 5.81% |
| Instrumental delivery | 4 | 4.65% |
| Delayed 2nd stage | 3 | 3.48% |
| Others | 3 | 3.48% |
| Mother's serological status( HIV negative) | 2 | 2.32% |
| Shoulder Dystocia | 2 | 2.32% |
| poor maternal efforts | 1 | 1.16% |
| **Total** | **86** | **100%** |

The results above were tabulated based on the listed criteria that the midwives use to guide the decision on performing an episiotomy, 17.44% (15) of the respondents based their decision on very tight Perineum, 11.62 % (10) premature labor, 12.79 % (11) on breech presentation and 10.46% (9) of them on whether FGM was performed. Further 9.3 % (8) of the respondents determine the condition of the baby, 8.13 %( 7) of them responded to hastening of the 2nd stage of labour, 6.97 % (n=6) based on baby's big size, 5.81% (5) of the respondents based on foetal distress. During instrumental delivery, 4.65 % (4) of the respondents would give an episiotomy, 3.48% (n=1.2) responded to delayed 2nd stage, and 2.32 % (2) of the respondents would consider shoulder dystocia, as an indication. Further 3.48% (3) of the respondents would consider

serological status of the mother and delayed second stage as the criteria for decision respectively. Only 1.16 % (1) of the respondents considered episiotomy whenever there is lowered maternal efforts.

## SECTION C: CURRENT KNOWLEDGE OF EVIDENCE BASED NURSING PRACTICE ON EPISIOTOMY

**Figure 2: Rating of the knowledge on evidence based episiotomy practice**

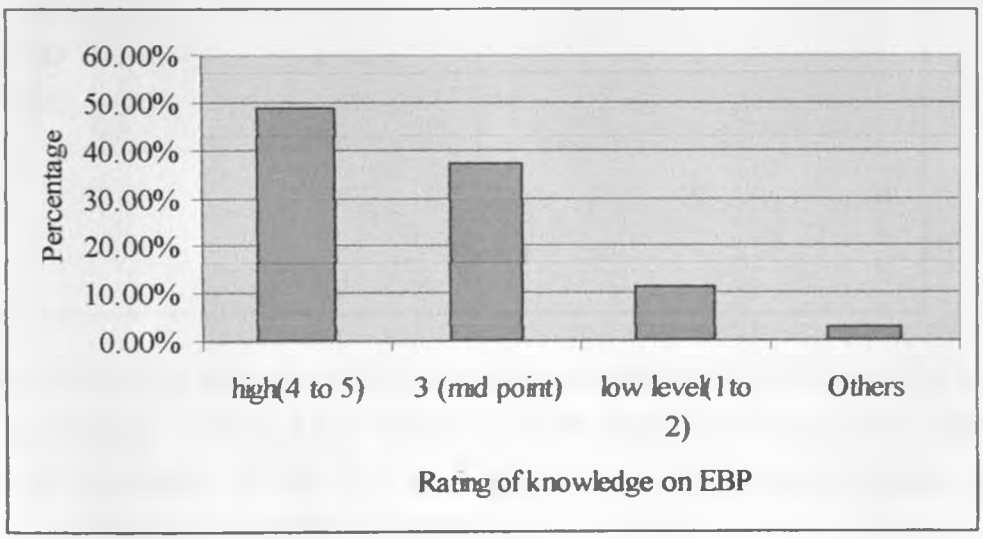
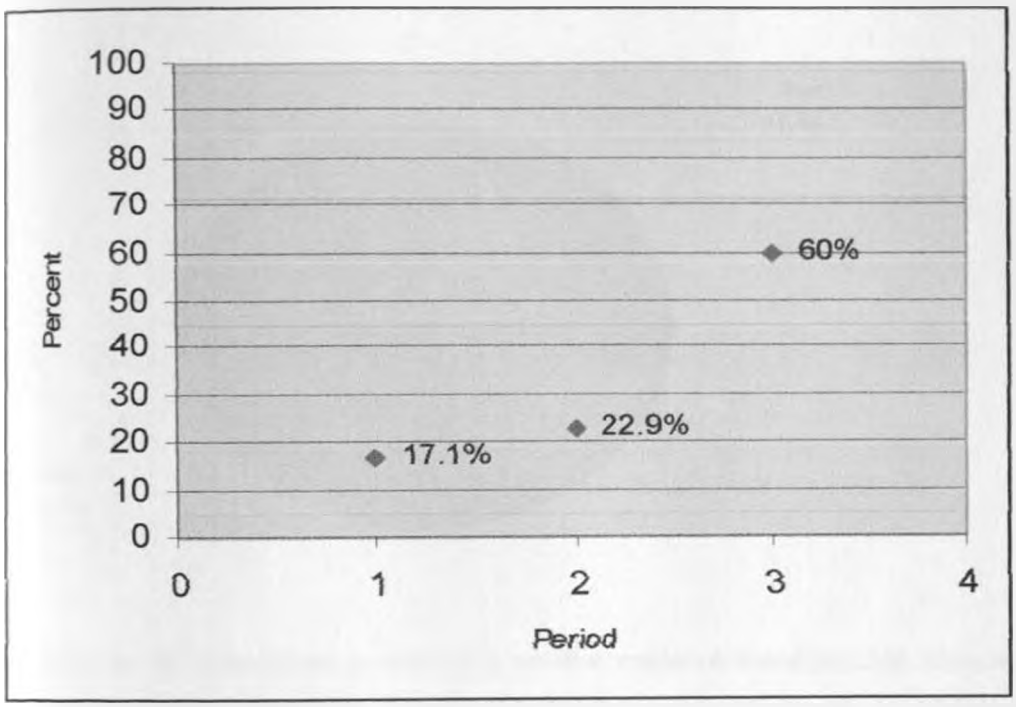


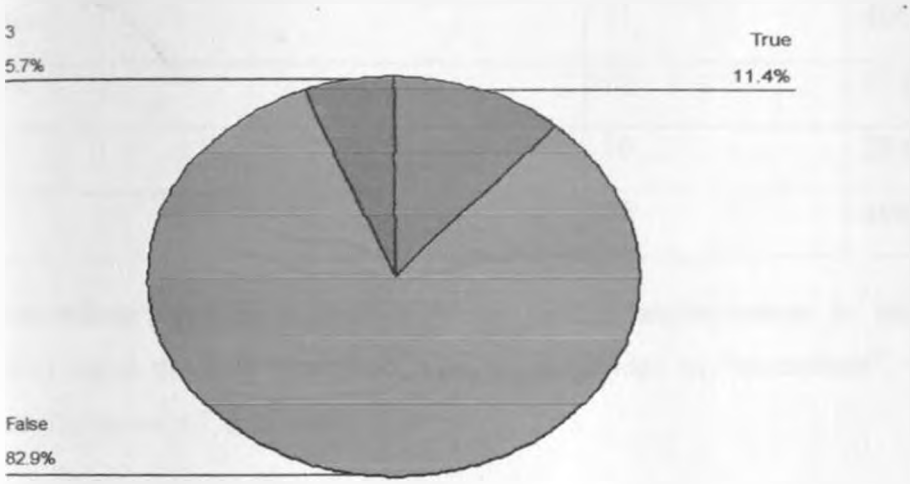

Fig. 5 above shows the rating of the midwives knowledge on evidence based episiotomy practice. According to the respondents, 48.6% (17) of them rated their knowledge on high level (4-5) points, 37.1% (13) at mid point (3) points, 11.4% (4) of the respondents rated their knowledge on low level (1- 2) points and 2.9% (1) of the respondents rated themselves on others.

**Figure 3: Last time to update your knowledge on episiotomy**




The figure above show when the midwives updated knowledge on evidence based practice of episiotomy. Majority of them being 60% (21) of the respondents have never updated their knowledge on episiotomy, 22.9 % (8) of them updated during the last past 3 months, and 17.1% (6) of the respondents said they did it 6 months ago.

**Figure 4: Whether evidence based practice on episiotomy advocates routine episiotomy**




According to the respondents in relation to whether evidence based practice advocates routine as opposed to selective episiotomy, 82.9% (30) of the midwives disagreed, 11.4 % (4) of them were affirmative and only 5.7% (2) did not give any response.

**Table 13: Rating the support provided by the facility and administrators**

| Rating facility Support for the use of Research Findings | | |
|---|---|---|
| | **Frequency** | **Percent** |
| Agree | 20 | 57.1% |
| Strongly disagree | 5 | 14.3% |
| Disagree | 5 | 14.3% |
| Strongly Agree | 5 | 14.3% |
| **Total** | **35** | **100%** |

Regarding facility support for the use of research findings on evidence based practice of episiotomy, 57.1 % (20) of the respondents agreed, 14.3% (5) of them disagree, strongly disagree and strongly agree respectively.

Table 14: **Administration support**

| Rating the support provided by the Administrators in enforcing the use of evidence | | |
|---|---|---|
| | **Frequency** | **Percent** |
| Sometime | 14 | 40% |
| Always | 11 | 31.4% |
| Never | 10 | 28.6% |
| | **35** | **100%** |

The respondents rate the support provided by the administrators in enforcing the use of evidenced based practice thus; 40% (14) of responded to "sometimes", 31.4% (11) of the responded to "always", and 28.6% (10) "never".

**Responses on evidence based nursing practice on episiotomy**

91.4 % (32) of the respondents reported that mediolateral episiotomy is better than midline episiotomy, while 8.6% (3) of the respondents said that midline episiotomy is better than mediolateral episiotomy.

Table 15: **Indications of Evidenced based episiotomy**

| **indications** | **Frequency** | **Percent** |
|---|---|---|
| Tight perineum | 33 | **28.7%** |
| Instrumental delivery | 25 | **21.36%** |
| Breech presentation | 22 | **19.1%** |
| Shoulder Dystocia | 17 | **14.8%** |
| Primigravida | 9 | **7.8%** |
| Patient's choice | 9 | **7.82%** |
| **Total** | **115** | **100%** |

There are many indications which were given by the respondents in relation to evidenced based practice on episiotomy, According to the respondents, 28.7% (33) of them reported that the major indication is a tight perineum, 21.36% (25) of the responded to instrumental delivery,

19.1% (22) of them responded to breech presentation, while 7.8% (9) indication primigravida and patients choice as indications respectively.

**Response on if evidenced based practice advocates selective**

**Episiotomy**

According to the respondents, 80% (28) responded to 'true' while only 20 % (7) of them responded to 'false' on whether evidence base practice advocates selective episiotomy.

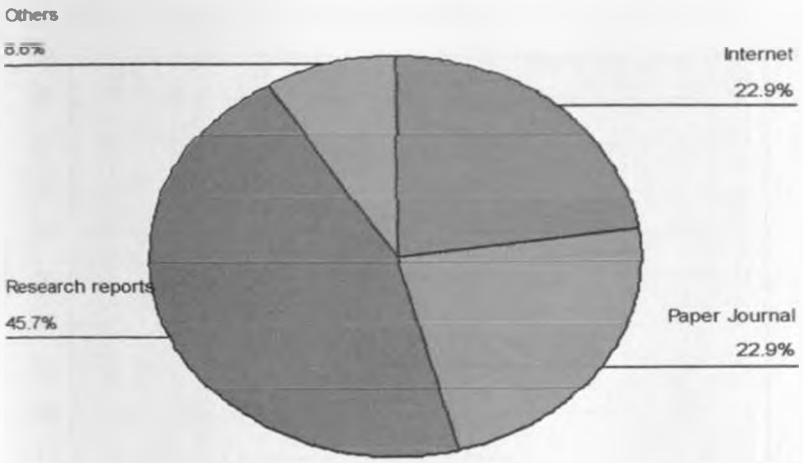
**Formal training on computer application**

With the current advances in technology it is imperative that health care workers are savvy and are kept abreast on the use of computer applications in their practice. In relation to having a formal training on computer application, 71.4% (25) midwives have not had a formal training on computer application, while 28.6 % (10) of the respondents said they have had a formal training on computer application.

**Frequency of accessing and reading literature on evidenced based practice of episiotomy**

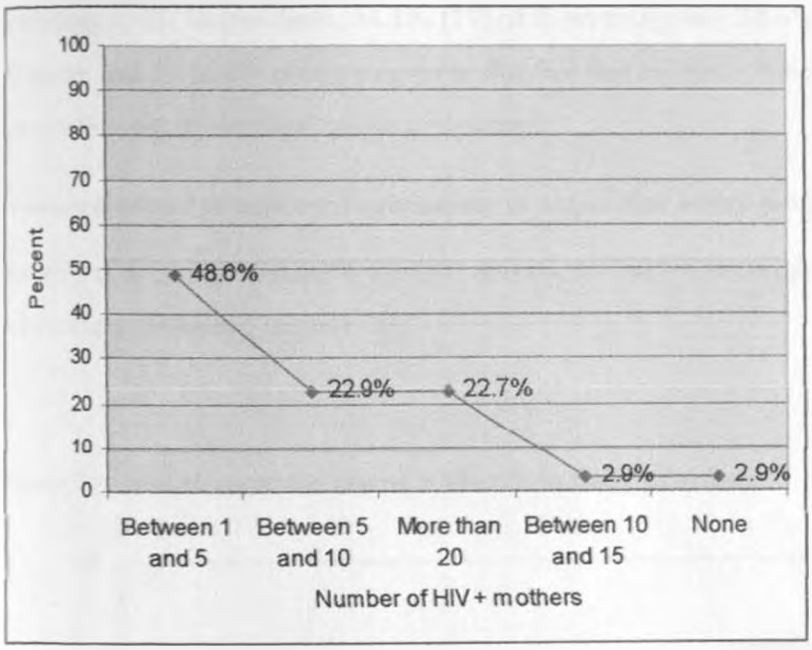
According to the respondents, 82.9% (29) of them accessed less than 2 articles, 11.4% (4) of them accessed 2 articles in a month, and only 5.7% (2) of the respondents said they accessed 3 to 5 articles in a month.

**Figure 5: Best source of current EBP information**




In relation to the best source of evidence based information, 45.7% (16) of the respondents mentioned the research reports, 22.9 % ( 8) reported the paper journal and internet respectively, and only 8.6 % (3) of the respondents gave other sources.

**Figure 6: The number of HIV Positive mothers under the midwife's care who required an Episiotomy in the past one year**




48.6% (17) have given an episiotomy to between 1 and 5 HIV positive mothers, 22.9 % (8) between 5 and 10 mothers, 22.7 % (8) of the respondents reported more than 20 mothers, 2.9 % ( 10.1) to between 10 and 15 mothers, and none respectively.

## SECTION D: ATTITUDE ON EVIDECE BASED PRACTICE OF EPISIOTOMY

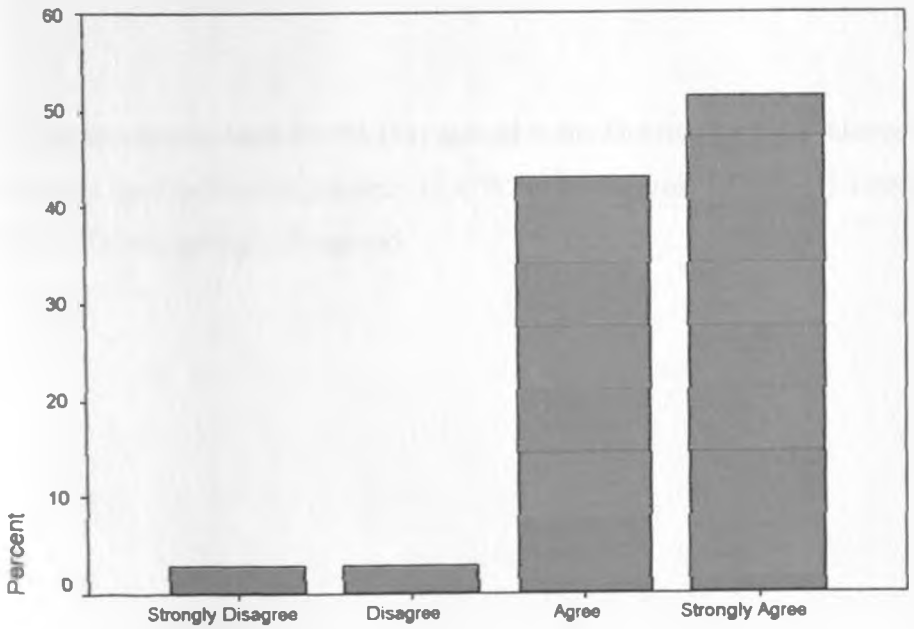
**Evidence based practice on episiotomy places unnecessary demands on me**

According to the respondents, 54.3% (19) of them disagreed, 28.6% (10) strongly agree, 11.4% (4) agree, and 5.7% (2) strongly agree to the fact that evidence based practice on episiotomy places unnecessary demand on the respondent.

***Evidenced based practice on episiotomy is important to my professional practice***

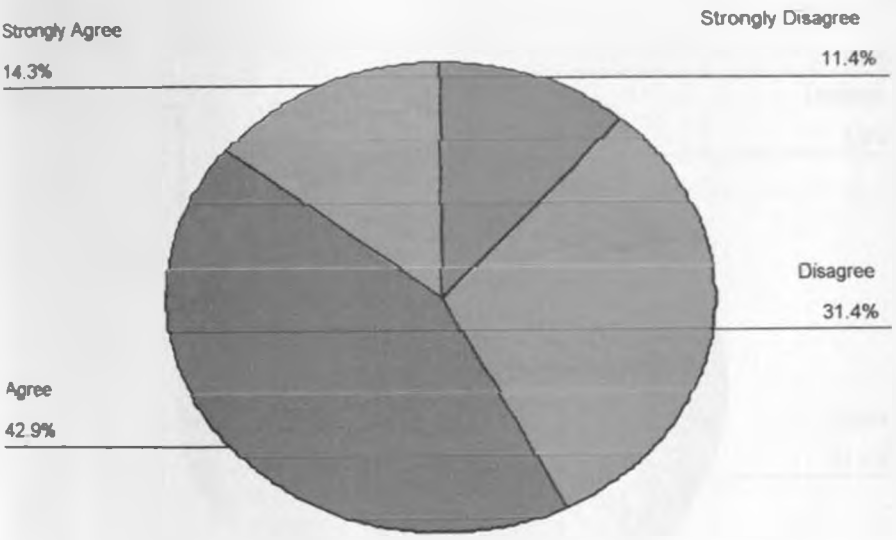
Majority of the respondents 48.6% (18) agreed, 45.7% (16) strongly agreed, 2.9% (1) disagreed and strongly disagreed respectively.

**Figure 7: Need to increase use of evidence in daily practice**



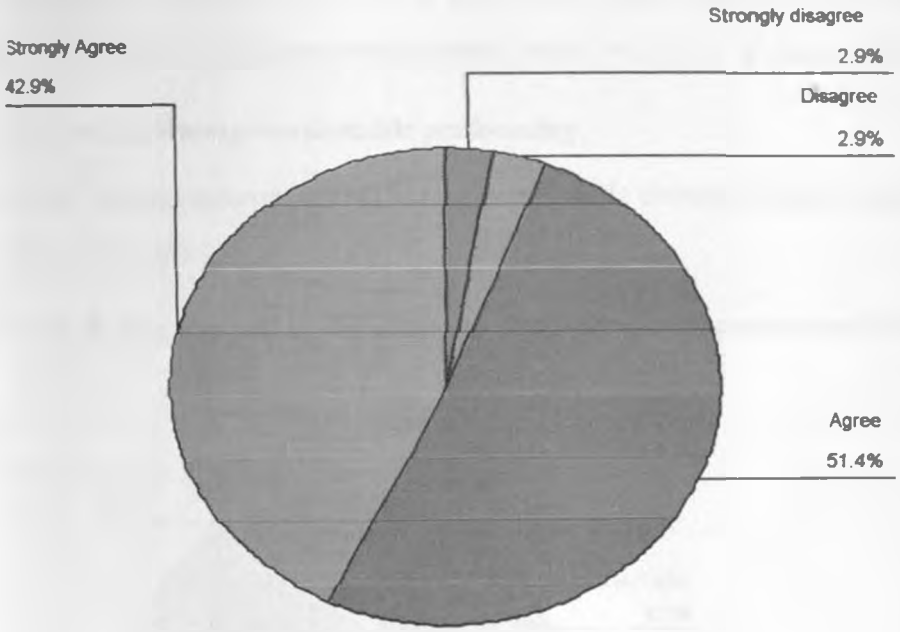

In relation to increasing the use of evidence in the daily practice, 51.4 % (18) of the responded to strongly agree, 42.9% (16) to agreed, and 2.9% (1) of the respondents disagreed and strongly disagreed respectively.

**Figure 8: Strong evidence lacking in most interventions used in clinical practice**




Majority of the respondents 42.9% (15) agreed to the fact that strong evidence is lacking in most interventions used in clinical practice, 31.4 % (11) disagreed, 14.3 % (5) strongly agreed, and 11.4% (4) of them strongly disagreed

**Figure 9: subject's opinion on evidence based practice being helpful in making decision about patient care**




On the question of whether evidence based practice help to make decision about patient care, 51.4 % (18) of the respondents agreed, 42.9 % ( 16) strongly agreed, and 2.9 % (1) of the respondents strongly disagreed and disagreed respectively.

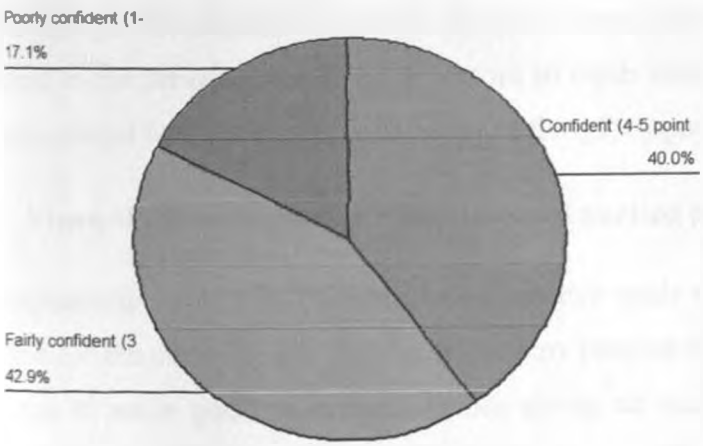
**Type of Episiotomy I prefer in terms of faster healing, easy repair, with fewer complications**

The figure above shows the two types of episiotomies, the respondents gave their responses as follows; 85.7% (30) of preferred mediolateral, while 14.3 % (5) of them midline episiotomy.

**The form of episiotomy comfortable performing**

Majority of the respondents 91.4% (32) are comfortable choosing selective rather than routine episiotomy 8.6% (3).

**Figure 10: Rating one self in the ability to critically review professional literature**




According to the ability to critically review professional literature, 42.9% (15) are fairly confident (3 points), 40% (14) are confident (4-5 points), 17.1 %( 6) are poorly confidents (1-2 points).

## SECTION E: DOCUMENTS ON EVIDENCE BASED PRACTICE

### Availability of practice guidelines on evidence based practice of episiotomy in the unit

According to the respondents, 42.9% (15) of the respondents said No in relation to practice guidelines on evidence based practice of episiotomy are available in the unit., 28.6 %(10) of the respondents said yes and not sure respectively in relation to practice evidence based practice of episiotomy being available in the unit.

48.6% (17) were not sure on how often the guidelines were reviewed, 17.1 % (6) responded to yearly, 14.3 %( 5) to quarterly and as needed respectively and only 5.7% (2) responded to other.

## FOCUS GROUP DISCUSSION RESPONSES

Focus group discussion (FGD) was done in the process of evaluating the evidence based practice of Episiotomy. The research targeted ten (10) focus group members who were interviewed according to the set questions to elicit a more in depth information relating to the topic. There were two groups with each group consisting of five (5) respondents.

- **Views of the midwives on evidence based nursing practice on episiotomy**

The respondents stated that evidence based practice tends to improve foetal outcome, helps to save time for the midwife, and that the episiotomy practice should only be done selectively. EBP helps one to make good assessment before giving an episiotomy and some have noted that selective episiotomy is important to maintaining perineal integrity. One of the members stated that "Me I think it should only be given to mothers whenever it is necessary".

- **Evidence based practice on episiotomy practiced at PMH**

Some group members responded that they apply the evidence based knowledge that they know in deciding whether to give an episiotomy or not. Some stated that they may not know what the current practices were and it was hard for them to know if what they were doing was EBP. A member reported that "Evidence based are those indicators which say it is a premature baby or if the perineum is tight"

- **The criteria being applied by the midwives in performing an episiotomy**

This was meant to elicit the various criteria that the midwives base in deciding if the mother needs and episiotomy or not and if the criteria chosen is evidence based. The responses were as follows: Maternal condition, perineal assessment, instrumental delivery, foetal presentation, second stage of labour and the size of presenting part.

- **Accessibility of research reports on evidence based nursing practice of episiotomy**

The respondent reported that they have no reliable way of accessing research reports in the unit. Some midwives reported that they can get information from the school of midwifery library but the information may not be current. Some stated that they depend on the memorandum that is circulated by their leaders whenever there is new information that needed attention but may not be specifically on EBP or episiotomy practice.

- **Barriers to the implementation of evidence based practice of episiotomy**

They reported that poor accessibility to information, lack of guidelines and policies, prevalence of HIV, staffing constraints, lack of interest to update oneself on current information, lack of computer application knowledge, and lack of appropriate equipment e.g. ( enough theatre services) as some of the most prevalent barriers.

- **Availability of guidelines addressing evidence based practices of episiotomy**

The respondents said that "somehow we have the information but they are not in written form" and since they are not written down then they do not conduct any reviews and updates and therefore no one is assigned to review the guidelines and policies.

- **Efforts that are put in place by the administrators to uphold the implementation of EBP of episiotomy**

Among the efforts put in place by the administrators that were discussed included continuing education in the unit where by a member of staff picks a topic of interest and conducts it among the staff. The topics are not necessarily on EBP but on any clinical topic relevant to them. Another support is in form of provision of equipment in the unit to facilitate efficiency of work

e.g. (buying new episiotomy scissors) as one member stated "They have now provided very nice scissors, when I was giving episiotomy, I was really enjoying it. So at least the administration has assisted us".

- **How evidence based nursing practice on episiotomy improve clinical practice**

The respondents said that EBP of episiotomy will help in infection control "We have said to avoid infection transmission from the mother to the baby", reduction of work load of repairing an episiotomy and reduction of cost to the patient. In addition, it will lead to a better delivery and post delivery outcome to the mother and baby.

- **Challenges faced by the midwives in the implementation of EBP of episiotomy**

The challenges mentioned included instrument malfunction, increased work load that allows them no time to implement duties and activities effectively, accessibility of the current information, under staffing in relation to increased patient population. Furthermore, majority of the midwives lack computer literacy and some mothers come to labour ward when they are at the second stage of labour and the midwife will have minimal time do conduct the appropriate assessment of give the mother alternative choices.

- **Solutions and recommendations to improving evidence based practice of episiotomy**

The group mentioned some solutions and recommendation to include; increase on the number of midwives in labour ward, organize continuing medical education on EBP of episiotomy, the need for other neighbouring hospitals and health care facilities to reduce costs to allow patients to get services there thus reducing the patient population at PMH. The midwives should be more vigilant in labor monitoring to allow them to make appropriate assessment that will enable them to give episiotomy only when indicated. Another important solution is for the midwives to change personal attitude from old practices to adopting new and evidence based practices which greatly improve practice. Furthermore, the women should attend antenatal clinic in order for them to get more patient education and relevant services in an appropriate time.

To improve the status quo, the respondents felt that the administration be proactive in upholding and reinforcing evidence based practices and to ensure that there are enough resources to handle the patient population, provision of quality service to the patients and a conducive working environment to the staff.

## KEY INFORMANTS INTERVIEW

Information was also elicited from the key informants of the institution regarding the study topic. There were a total of four key informants namely, the chief nursing officer, the assistant chief nursing officer, labour ward nurse in charge and assistant labour ward nurse in charge. One on one interview was carried out and the responds documented.

- **Their role in relation to evidence based practice of episiotomy**

The responses included their role in supervision by ensuring that the midwives practice what is expected of them, advocacy for selective form of episiotomy and provision of resources for the services.

- **Policies and guidelines on evidenced based practice of episiotomy**

They concurred with the midwives that they have no written down guidelines but they were working on a modality to have policies and guidelines for every procedure so that they can standardize services in the facility. They reported the fact that the guidelines available are old and out dated and only reflected some information which may not be relevant to the current practice.

- **The plans to be put in place to ensuring midwives get updated information**

They reported that they currently send at least one staff member weekly to attend a seminar and encourages provision of feedback information in the unit. They also mentioned that they encourage continuing education in the unit where by each midwife chooses a topic and leads the discussion. They reported the need to carry out specific continuing education on evidence based practice of episiotomy. They emphasized on the importance of establishing written guidelines, and to organize training on computers for all midwives. One other important report is that they

encourage research studies to be done in their facility to be able to get feedback with recommendations on ways to improve their services.

- **Barriers to evidence based practice of Episiotomy,**

Comments on barriers included the attitude of the midwives towards change with some "sticking" to old practices, computer illiteracy as mentioned that "whether you have the computer or not. unless when you want to find information you will not just get it", and unavailability of internet access in the organization. Other respondents reported that equipment and resources needed to prevent unnecessary episiotomy performance may be inadequate (i.e. enough theatres and staff to attend to elective caesarean sections for HIV positive mothers who opt for it). Lack of written policies and guidelines on current information hinders standardization of practice. Finally, some reported that workload hinders the midwives from getting time to access various research reports in the hospital or otherwise.

# CHAPTER FIVE: DISCUSSION, CONCLUSIONS AND RECOMMENDATIONS

## 5.0 INTRODUCTION

This chapter presents the discussions, conclusions and the recommendations in relation to the main objective of the research study which was to evaluate evidenced based practice of episiotomy by the midwives at Pumwani Maternity Hospital. The presentations were done based on the objectives of the study and the research questions. The objectives of the research will be discussed below in relation to the research findings.

## 5.1 DISCUSSION

The information is presented in descriptive findings only and does not examine the causes of differential findings between the different cadres of the midwives which may in part be explained by the variations in specific categories such as demographic information.

The study participants were the midwives working in Pumwani maternity hospital. Majority of the participants were female. The participants aged between 18 years and above 45 years with a mean age being 31 years.

Majority of the respondents aged between 27 to 35 years had KRCHN level of education, followed by those who had KRM. Most of them had their basic training for a period 2.5 years. These are enrolled nurses/ midwives with a working experience of between 5 to 10 years.

**Sources of evidence based information on current literature**

The study results show that most midwives got information and knowledge on evidence practice of episiotomy from the nursing school where they received their basic qualifications, and a few of them through continuing education. FGD responded that "the accessibility is hard".

Despite their subjective high rating of themselves on knowledge on EBP there is evidence that specific knowledge on EBP of episiotomy is limited. Information from the nursing school is based on the syllabus that gives basic and introductory information. These findings on sources of current evidence based literature show that midwives need to put a great deal of effort to update themselves on the current issues on episiotomy as an on going practice.

Continuing education is an important source of current information. This is supported by Benard (2009) when she noted that nurses have an ongoing need to expand their professional knowledge and skills due to rapidly changing advances in health care and technology. Nurses who have achieved certification should create a professional development plan that builds on their knowledge and keeps them current about developments in their particular role and specialty area. Selection of continuing education activities should be based on the individual's self assessment and should foster individual's professional growth.

It is essential to be knowledgeable about the rapidly changing health care environment and of new evidence-based practices. An excellent source of information related to evolving evidence reports is the Agency for Healthcare Research and Quality (AHRQ) (Reeves, 2006). To meet its mission of promoting the practice of evidence-based health care, AHRQ collaborates with various organizations to develop evidence reports and technology assessments on priority topics important to health care delivery in the United States. AHRQ provides a list of topics in progress to alert the public and health care professionals that work has begun in developing evidence reports about topics of significant interest (AHRQ, 2006). Some of the studies which have been conducted by the agency include a systematic review of all published research on episiotomies. thestudy found that routine use of episiotomy for uncomplicated vaginal births does not provide any immediate or long term benefits to the mother. The midwives at PMH can plan to access this site and get information on evidence based episiotomy practice.

**Criteria influencing the decision on episiotomy**

It was evident from the responses that midwives make assessment before giving an episiotomy although the responses given did not entirely indicate that the criteria influencing the decision is strongly evidence based. Various responses showed that majority of them check the tightness of

the perineum, some will put the patient in lithotomy position and thus decide whether they will give the episiotomy, others will check the foetal head presenting to determine if at all it is at the right position. FGD responded that the criteria being applied by the midwives in performing an episiotomy is based on the maternal condition, perineal assessment, instrumental delivery, foetal presentation, and second stage of labour and the size of presenting part. Some FGD responses will depend on "if the doctors tell you to do it" It is evident that some criteria employed by the midwives at PMH are consistent with those applied by different health care practitioners in different parts of the world. This is evidenced by the results from a study which was done by the U.S citizens commission on human rights team (2005) which showed the results based on the exploratory study aimed at identifying the frequency, the types and the criteria adopted to recommend episiotomy. The most frequent indications from their study were: perineal rigidity (28.7 per cent), primiparity (23.7 percent), macrosomic infant (11.9 percent) and prematurity (10.2 percent). The team concluded that the practices for attending women giving birth must be revised taking into account scientific evidences and individualized conducts.

**Barriers to evidence based practice of episiotomy.**

There is still a problem in incorporating evidence based information into practice. The problem is seen when the results show midwives' lack the skills to critically review research findings thus unable to frequently update their knowledge on the research findings relevant to their practice. Therefore, lack of accessibility of current information on EBP of episiotomy is a big barrier to the midwives in the facility.

The key informants and the FGD members reported their responses with some mentioning that "I think we have quite a lot of the barriers" some of the barriers to evidence based practice of episiotomy that were reported included unfavorable attitude of some midwives towards change, computer illiteracy, no internet accessibility in the organization, lack of written policies and guidelines on current information and workload as one mentioned that "how are you going to practice it when you are one with ten mothers?"

The findings at PMH are echoed by Belizan et al (2007) in their study which noted that many hospitals have not translated their clinical practices to reflect research findings. Barriers noted included limited access to new knowledge, limited time and physical resources and attitudes, resistance to change as factors limiting the adoption of new practices in such hospitals. Lack of skills in performing new practices, lack of medical resources and explicit guidelines and a perceived need to practice defensive medicine were part of the hindrances.

As noted in the findings, attitude towards change was one of the barriers, it is important to understand that changing long-standing clinical practice is difficult (Leeman et al 2006). Time constrains and increasing nursing care needs are inherent in clinical practice. Nurses face a real challenge when translating best evidence into clinical practice. For example, the relevant research-based databases are not comprehensive in many areas of nursing practice. Also, there is an ongoing explosion in the amount and type of information available (Pipe et al, 2005).

Without a strong and consistent institutional support it is hard for the midwives to achieve the goals for improving practice. In relation to rating the support provided by the administrators in enforcing the use of evidence based episiotomy practice, there is need to emphasize more the support by the administration in order to foster the culture of embracing change.

Grol and Wensing (2004) noted that one of the most consistent finding in health services research is the gap between best practice, on the one hand, and actual clinical care, on the other. Studies in countries such as the United States and the Netherlands suggest that at least 30%–40% of patients do not receive care according to current scientific evidence, while 20% or more of the care provided is not needed or potentially harmful to patients. Reflecting on this failure of implementation, most experts in healthcare improvement now emphasize the crucial importance of acquiring a good understanding of the problem, the target group, its setting and the obstacles to change in order to develop more effective strategies for change.

Some more potential barriers were outlined by the NICS barrier tool. Some of the highlighted barriers are experienced by the midwives at PMH.

- **Patient-** Volume and patients expectations of certain care process

- **EBP process-** Identification and implementation of EBP is a difficult process (What is evidence? How and where is it accessed)
- **Team issues-** Too many practitioners and hence will require a uniform approach, and working in multidisciplinary teams means all the members should be for the idea at hand.
- **Care process-** Wide ranging service models of care delivery even for one patient and lack of uniformity
- **Management interest and support** -No recognized clinical champions in this field, continual changes in leadership , and executive do not see it as an issue…their focus is the funding shortfall
- **Time/facilities/cost**-Time pressure, cost effectiveness and structural limitations.

**Prevalent type of episiotomy at PMH**

Medio-lateral is the most preferred by the midwives than midline episiotomy. These findings are consistent with the observation made by Lingen (2006) stating that midline episiotomy is by far more common in United States, while medio-lateral episiotomies are more common in other parts of the world. The midwives are aware that evidence based practice on episiotomy advocates selective episiotomy rather than routine type. The study findings from the U.S citizens commission on human rights team (2005) showed that the most mentioned type was the right medium-lateral (92.0 percent), and the justifications were: it was learned during academic formation (25.9 percent); it is adopted routinely (19.4 percent); with it there is a lesser chance for causing lesions to the anal sphincter (16.1 percent); with it there is a lesser risk of complications (16.1 percent)

**Guidelines on evidence based practice of episiotomy.**

There was strong evidence that showed that there were no written guidelines available on EBP of episiotomy in PMH labour ward. FGD reported that "In fact in case they have, they are not up to date"

Fraser, et al (2006) noted the importance of the Better Birth Initiative (BBI) in relation to the guidelines which needs to be put in place for episiotomy. This initiative supports the implementation of procedures and interventions that are based on scientific evidence. Better birth initiative focuses on a set of standards that aim to improve the quality and humanity of obstetric care. The initiative has four principles: i.e. Humanity- women are to be treated with respect, Benefit- care based on the available evidence, Commitment –health professionals committed to improving care, Action – effective to change current practices.

Clinical practice guidelines are systematically developed statements to assist practitioner and patient decisions about appropriate health care for specific clinical circumstances. They define the role of specific diagnostic and treatment modalities in the diagnosis and management of patients. The statements contain recommendations that are based on evidence from a rigorous systematic review and synthesis of the published medical literature (Field and Lohr, 2009)

The purpose of guidelines is to help clinicians and patients make appropriate decisions about health care by describing a range of generally accepted approaches for the diagnosis, management, or prevention of specific diseases or conditions and by defining practices that meet the needs of most patients in most circumstances (Field and Lohr, 2009).

The recent surge of interest on guidelines is not new. Professional organizations have been developing guidelines for at least half a century, and recommendations about appropriate care can be found in ancient writings. What is new is the emphasis on systematic, evidence-based guidelines and the interest in processes, structures, and incentives that support the effective use and evaluation of such guidelines (US department of health, ND).

Current guidelines are those that were developed, reviewed, or revised within the last five years. Expert panels are formed to write clinical practice guidelines. An expert panel is a committee of appointed by the institution (Field and Lohr, 2009).

**Role of the administrators**

According to the responses from the FGD, the respondents reported that, the administrators organize continuing education and provide equipments. Concerning the plans to be put in place

to ensuring midwives getting updated information, the administrators plan and send a representative midwife for a seminar weekly although not necessarily on evidence based practice. They advocate for selective episiotomy instead of routine one.

The administrators plays an important and a forefront role in ensuring that the goals to reduce rates of episiotomy. This is evident from the study which was done by Hyer in conjunction with the ACOG in (1997) which revealed that episiotomies were performed in over 30 percent of deliveries, but the decline had already begun. This was accelerated by various factors i.e. the hospital adopted the performance-management tool known as the Balanced Scorecard, the obstetric chiefs made reducing episiotomy a priority, articles were published recommending against routine episiotomies, and suggesting that the rate be less than 15%. A 50 % decrease in episiotomies following these recommendations was achieved.

**Rate of episiotomy among the patients with HIV/AIDS**

The study findings revealed a decline in routine episiotomy among women who are HIV positive. The midwives avoided the practice whenever possible but there were incidences where they were forced by unavoidable circumstances to give an episiotomy to this group of women.

It is important to restrict routine episiotomy practice because the risk of HIV transmission from mother to infant during pregnancy, labour and delivery together is about 20 percent if antiretroviral treatment is not used. The risk of HIV transmission during labour and delivery is about 15 percent. Therefore, most of this transmission takes place during labour and delivery. Efforts to reduce HIV transmission during labour and delivery are, very important. The management of all women in labour needs to be modified as it is often not known which women are HIV positive (Perinatal education Program 2004).

Whether a woman is HIV positive or not an episiotomy should only be done if there is a good clinical indication. It should not be a routine procedure. HIV in maternal blood from an episiotomy may be swallowed and, thereby, infect the infant during delivery. Healing of the episiotomy may also be delayed if the woman has depressed immunity (Perinatal education Program 2004).

As their prime duty to mothers before, during and after childbirth. Midwives have a role in the achievements of safe motherhood. They carry a huge responsibility in helping women and their families through pregnancy and childbirth process (Kwast, 1990).

A study done in western Kenya on 512 mother-infant pairs, to determine maternal malaria and perinatal HIV transmission showed that HIV viral load (log 10) and episiotomy or perineal tear were associated with increased perinatal HIV transmission (Ayisi et al, 2004)

Lijestrand (2003) notes that there are increased risks of HIV transmission to the midwives during suturing of episiotomies due to the risk of a finger-prick injury which is high, especially if a small needle is used. Current data indicate that the role of mother-to-child HIV transmission at birth may have been underestimated. Thus, any invasive intervention may increase the risk of vertical transmission.

It is further evident that healthcare workers are at risk of infection as noted in a study done on a total of 416 gloves that were tested for punctures after 200 episiotomy repairs. Evidence of perforation was found in 34 (8 percent) of the gloves used and in only half the cases did the surgeon actually realize that a perforation had occurred. The left index finger and thumb were more often perforated than other parts of the gloves (Arena, 1992).

The literature and study findings show that there is a need to reduce those interventions that increase the rate of HIV transmission. This will in turn reduce vertical transmission and risks to the health care professionals.

## 5.2 CONCLUSION

Most midwives in PMH have high academic qualifications (KRCHN and KRM) that are specific to midwifery practice however, this practice does not translate to evidence based practice of episiotomy in clinical practice. Majority of them feel that they are well versed with current information on evidence based episiotomy practice which may be impeding their pursuit for this information.

The Pumwani maternity hospital does not have current guidelines and policies on evidence based practice of episiotomy. The midwives understand what is expected of them but there are no written down policies and guidelines to standardize their practice.

The factors influencing the nurses decision on episiotomy practice is based on their basic education, the experience they have received and their knowledge update through continuing education. The results showed that some of the factors influencing the decision on performing episiotomy evidence based and some are not e.g. some midwives avoided episiotomy to avoid more work of repairing it.

Some midwives still adhere to outdated episiotomy practices and techniques. They have not fully implemented and embraced the modern techniques of operation and service provision based on evidence based reports. A good percentage of the nurses do not have knowledge and skills on the use of computer operations and thus it is difficult to access relevant information influencing their practice.

The most prevalent type of episiotomy preferred at Pumwani is medio lateral more than the midline episiotomy.

The midwives appreciate evidence based practice of episiotomy and they expect a total support from their administration to provide accessible research report in the units. They would appreciate new equipment, materials and good governance, and computer training to improve their practice.

It is evidenced that despite the HIV status of the patient there are instances that the midwives are forced by circumstances to give an episiotomy. For instance, when a patient is admitted in second stage of labour and has an indication for an episiotomy.

## 5.3 RECOMENDATIONS

- There is an urgent need to form a committee of experts who can develop clinical practice guidelines which should be reviewed every five years and updated as needed when there is new information.
- There is a need to provide computer training for the midwives and other employees in the facility to enable them to be up to date with the current technology and information.
- The administrators should provide more support based on the identified needs of the employees especially on current evidence based practices.
- Awareness should be created and enhanced among the community on the importance of antenatal care. This will allow the health care workers and the clients to make a birth plan in a timely manner to avoid crisis management type of care.
- Formal training on the evidenced based practice of episiotomy should be enhanced through continuing education, seminars, etc, to allow midwives to keep abreast with the new information. In addition, research reports should be availed in the clinical area to facilitate accessibility by the midwives for review.
- The administration should consider adjusting staffing needs to avoid work overload which restrain the midwives from getting some opportunities to update themselves by attending seminars, workshops and continuing education and ward rounds.
- In the long term planning, the administration should consider additional theatres and staff to cater for elective caesarean sections especially for the clients who are HIV positive for PMCTC purposes.
- To be able to move on with implementation of change which will influence clinical practice, there is a need to strengthen communication management because effective propagation of current practices, information from literature if adopted by the team will result to positive outcomes

## REFERENCES


Althabe, F., Buekens, P., Berges, E. Belizan,, J. M.; Campbell, M. K., Moss, N. et al., (2008). A behavioural intervention to improve obstetric care. *National English Journal of Medicine*, 358(18), pp. 1929 – 40.

Althabe, F., Belizan, J. M., & Bergel, E., (2002). Episiotomy rates in primipara women in Latin America: hospital based descriptive study, *British Medical Journal*, **234**(7343), pp.

Arena, N., Maffulli, I., Vocaturo' and Scognamiglio, G., (1992). Incidence of glove perforation during episiotomy repair. Department of Obstetrics and Gynaecology King's Drive, Eastbourne District General Hospital; 251, 111-114 945-6.

Ayisi, J. G., Eijk, A. Y., Newman, R. D., Kuile, F. O., Shi, Y. P., Yang, C., (2004). Maternal malaria and perinatal HIV transmission, Western Kenya. www.cdc.gov/eid **10** (4)

Belizan, M., Meier, A., Althabe, F., Codazzi, A., Colomar, M., Buekens, B., (2007). Facilitators and barriers to adoption of evidence based perinatal care in Latin American hospitals: a qualitative study. Health Education Research, *Oxford Journal*, **22**(6), pp. 839-853.

Benard, A. (2009). Why certified nurses should look for credited continuing nursing education. American Nurses Credentialing Centre.

Carey, M.A; & Smith, M.W. (1994). Capturing the group effects in focus groups: a special concern in analysis. Journal of qualitative health research, 4(1), 123-129.

Carroli, G. & Belizan, J., (2001). Episiotomy for Vaginal birth, Cochrane pregnancy and childbirth group, Cochrane database of systematic reviews issue 3 of update software, Oxford.

Citizens commission on Human rights, (2005). Frequency and criteria for the indication of episiotomy: cchr.org. Accessed on 8/8/09.

Cochrane, A. L. (1972). Effectiveness and efficacy. Medicine Press London Nuffield Provincial Hospital Trust London. ISBN 1-85315 (Book review).

Enkin, M. W. (1989). Effective care of the low risk woman in pregnancy and childbirth. Gynaecological proceedings. Parthenon, Carnforth, pp. 48-61.

Enyindah, C. E., Fiebai, P. O., Anya, S. E., Okpani, A. O., (2007). Episiotomy and Perineal trauma prevalence and obstetric risk factors in Port Harcourt, Nigeria. *Nigerian Journal of Medicine*, **16**(3), pp. 242-5.

Field, J.F., & Lohr, K. N., (1990). Clinical practice guidelines; Institute of Medicine.

Fraser, D. M., Cooper, M. A. & Nolte, A. G., (2006). Myles Textbook for Midwives: African Edition. Elsevier Limited, London. pp. 434-5.

Grol, R. & Wensing, M., (2004). What drives change? Barriers to and incentives for achieving evidence-based practice. *Medical Journal of Australia*; **180:** S57- S60

Hartmann, K., Vishwanathan, M,. Palmieri, R,. Gartlehner, G., Thorp, J., Lohr, K., (2005). Outcomes of routine episiotomy: a systematic review. *Journal of American medical association,* **293**(17), pp. 241-248.

Holsti, O. (1969) definition of content analysis. http://en.wikipedia.org/wiki/Content_analysis accessed on 13.09.09

Hyer, R., (2009). Steep decline in episiotomy rates credited to research, peer pressure. Report by ACOG- 57th Annual clinical meeting.

Hayman, R., (2005). Instrumental vaginal delivery. *Current Obstetrics and Gynaecology*, **15**(2), pp. 87-96.

Heit, M., Mudd, K. & Culligan, P., (2006). Prevention of childbirth injuries to the pelvic floor. *Current Women's Health Reports*, **1**, pp. 72-80.

Hodnett, E. D., Kaufman, K., O'Brien-Pallas, L., Chipman, M., Watson-Macdonell, J., Hunsberger, W., (1996). A strategy to promote research-based nursing care: effects on child birth outcomes. *Research in Nursing and Health*, **19**(1), pp. 13-20.

Kiros, K. B. & Lakew, Z., (2006). Magnitude of episiotomy in teaching hospital in Addis Ababa, Ethiopia. *Ethiopian Medical Journal*, **44**(3), pp. 205-9.

Kwast, S. E., (1990). Midwives role in safe motherhood; International confederation of midwives. *Japanese Nursing Association*, pp. 25-27.

Leeman, J., Jackson, B. & Sandelowski, M., (2006). An Evaluation on how research report facilitates the use of findings in practice. *Journal of Nursing Scholarship*, **28**, pp. 171-177.

Liljestrand, J., (2003). Episiotomy for vaginal births. The Reproductive Health Library; Geneva, WHO.

Lingen, J., (2006). Labour and Deliver: episiotomy. *Health line Pregnancy Guide*. February issue.

Eason, M., Labrecque, M. Marcoux, S. Mondor, M., (2002). Anal incontinent after childbirth. *Canadian Medical Association Journal*; **166**(3), pp 326-330.

Maduma, B. A., Dyall, A. & Garner, P., (1998). Routine episiotomy in developing countries: time to change a harmful practice. *British Medical Journal* (Clinically researched ED), **316** (7139), pp. 179-80.

McCandlish, R., (2001). Perineal trauma: prevention and treatment. *Journal of Midwifery and Women's Health*. **46**(6), pp. 396-401.

Nicholas, P. W., (2004). Capacity building in the implementation of a comprehensive program to prevent mother to child HIV transmission at University of Nairobi teaching hospitals; notice of intent to fund single eligibility award. Centre for Disease Control and prevention; Department of Health and Human Services, *Federal register*; **69**(114). {Notices}

Nordberg, E. Mwobobia, I. & Muniu,.E., (2001). Minor surgery at hospitals and clinics in a Kenyan district. *East African Medical Journal*, **78**(2), pp. 102-6.

Paraoo, K., (2000). Barriers to and facilitators of research utilization among nurses in Northern Ireland. *Journal of advanced Nursing*, **31**(1), pp. 89-98.

Perinatal HIV/AIDS, (2004). HIV in labour and delivery. Perinatal education programme unit 33

Pipe, T. B., Wallik, Kay, E., Vicki, L., Hansen, Carol, M. et al., (2005). Implementing evidence-based nursing practice. *Urology Nursing*, **25**(5), pp. 365-370.

Reeves, K., (2006). The importance of utilizing evidence-based practice. *MedSurg Nursing Journal;* 261, 329.

Repke, J. T., (2003). When is episiotomy warranted? What the evidence shows: *OBG Management*, **15**(10), pp. 46-54.

Repke, J. T., Signorello, L.B., Harlow, B.L., Chekos, A.K., (2006). Practice guidelines issued for use of episiotomy. *Obstetrics and Gynaecology*, **107**(4), pp. 957-962.

Sackett, D. L., Rosenberg, W.M., Gray, J. A. et al., (1996). Evidence based medicine: what it is and what is isn't. *British Medical Journal*, **312**, pp. 71-2.

Smith, H., Brown, H., Hofmeyr, G. J., Garner, P., (2004). Evidence-based obstetric care in South Africa: influencing practice through the Better Birth Initiative. *South Africa Medical Journal*, **94**(2), (Abstract)

Streubert, H.J., & Carpenter, D. (1999). Qualitative research in nursing: advancing the humanistic imperative (2nd ed.). Philadephia: J.B. Lippincott company.

Sultan, A. H., & Fernando, R., (2001). Maternal obstetric injury. *Current Obstetrics and Gynaecology*; **11**(5), pp. 279-284.

The NICS barrier tool: *National Institute of Clinical Studies*, admin@nicsl.com.au.

Viswanathan, M., Hartmann, K., Palmieri R., Lux, R., swinson, T., Lohr, K. N., Gartlehner, G., Thorp J. Jr., (2005). Outcomes of routine episiotomy: a systematic review. *Journal of American Medical Association*, **293**, pp. 2141 -8.

Viswanathan, M., Hartman, K., Palmieri, R., Lux, R., Swinson, T., Lohr, K. N., Gartlehner, G., Thorp J. Jr., (2005). Episiotomy in Obstetrical care: a systematic review summary. Agency for Health care Research and Quality (Evidence Report/Technology Assessment, Number 112).

Whitehead, C., (2006). Health promotion in the practice setting: finding from a review of clinical issues. **3**(4), pp. 184 (abstract).

www.nap.edu/openbook.php (1992). Guidelines for clinical practice: from development to use. Institute of Medicine.

www.nhlbi.nih.gov/guidelines/about.htm: US Department of Health and Human resources. Accessed on 9.8.09.

Woolley, R. J., (1995). Benefits and risks of episiotomy: A review of the English-language literature since 1980. Part I. *Obstetrics and Gynecological Survey,* **50**, pp. 806-820.

# APPENDICES

## APPENDIX I: Questionnaire

### MIDWIVES RESEARCH QUESTIONNAIRE

### EVALUATION OF EVIDENCE BASED EPISIOTOMY PRACTICE BY THE MIDWIVES.

**Questionnaire no: _____ Research assistants' initials ----------**

**INSTRUCTIONS**

**(Please answer the following questions. Write in the spaces provided or tick the appropriate option in the box provided. DO NOT write your name or any information that can identify you as an individual. Answer all the questions).**

**SECTION A (i). DEMOGRAPHIC INFORMATION.**

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| 1. Gender | Male | Female | | | | | |
| 2. Age in completed years | 18-26 | 27-35 | 36-45 | Above 45 | | | |
| **SECTION A (ii): MIDWIVES EXPERIENCE AND EDUCATION** | | | | | | | |
| 3. Training qualification | PhD | MScN | BScN | KRCHN | ICN | KRM | Other |
| 4. Indicate current title | | | | | | | |
| 5. Duration of basic training in yrs | Above 4 | 2-3 | 1 | | | | |
| 6. Years of practice as a midwifes | Over 10 yrs | 5-10 yrs | 1-4 yrs | Below 1 yr | | | |
| 7. How long have you worked in Pumwani Labour ward | Over 10 yrs | 5-9 yrs | 1-4 yrs | Below 1 yr | | | |

8. What motivated you to start working in the labour ward?

1. Personal choice ☐
2. Deployment ☐
Others (specify) _____

9. Have you had any formal training on evidence based practice (EBP) on episiotomy?
1. Yes ☐
2. No ☐

10. If yes how did you get your training?

1. Nursing school ☐
2. In-service ☐
3. Continuing education ☐
4. Self taught ☐
Others (specify) _____

11. How long did the training on evidence based practice on episiotomy) take?

1. 1 year ☐
2. 6 months ☐
3. 3 months ☐

Others (specify) _____

SECTION B: CURRENT PRACTICE ON EVIDENCE BASED PRACTICE ON EPISIOTOMY

| | 1 | 2 | 3 | 4 | 5 |
|---|---|---|---|---|---|
| 12. Which type of episiotomy do you prefer to give | Medio-lateral | Midline | | | |
| 13. How many mediolateral episiotomies have you given in the last 1 year | Above 20 | 15-20 | 10-15 | Below 10 | Other |
| 14. How many midline episiotomies have you given | Above 20 | 15-20 | 10-15 | Below 10 | Other |
| 15. On average how long does it take you to repair an episiotomy? (Minutes) | Under 1 | 2-4 | 5-10 | Over 10 | |
| 16. How many sutures do you use on average to repair an episiotomy? | 1 | 2 | 3 | More than 3 | |

17. What assessment do you do before giving an episiotomy
Explain-_____

_____

_____

18. Give reasons that guide you to give an episiotomy

a. _____

b. _____

c. _____

d. _____

e. _____

**SECTION C: CURRENT KNOWLEDGE OF EVIDENCE BASED NURSING PRACTICE ON EPISIOTOMY**

| | 1 | 2 | 3 | 4 |
|---|---|---|---|---|
| 19. Where do you rate your knowledge on evidence based nursing practice on episiotomy? | High level (4-5) points | Mid point (3) points | Low level (1-2) points | |
| 20. When did you last update your knowledge on episiotomy? (Ages) | Never | 3 months | 6 months | Other |
| 21. Evidence based practice on episiotomy advocates routine episiotomy | True | False | | |
| 22. How do you rate your facility support for the use of research findings on evidence based practice of episiotomy? | Strongly disagree | Disagree | Agree | Strongly agree |
| 23. How do you rate the support provided by the administrators in enforcing the use of evidence based nursing practice? | Not sure | Yes | No | |
| 24. How do you rate the support provided by the administrators in enforcing the use of evidence based nursing practice? | Always | Never | sometime | |

25. According to evidence based nursing practice on episiotomy

1. Mediolateral episiotomy is better than midline episiotomy ☐
2. Midline episiotomy is better than mediolateral episiotomy ☐
3. There are no differences between them ☐

26. The following are evidence based indications of episiotomy. Check all that apply

1. Tight perineum ☐
2. Primigravida ☐
3. Shoulder dystocia ☐
4. Breech presentation ☐
5. Instrumental delivery ☐
6. Patient's choice ☐

Evidence based practice on episiotomy advocates selective episiotomy

1. True ☐
2. False ☐

27. Have you had a formal training on computer applications?

1. Yes ☐
2. No ☐

29. How often do you access and read literature on evidence based practice of episiotomy?

1. Fewer than 2 articles in a month ☐
2. Articles in a month ☐
3. 3-5 articles in a month ☐

30. What is your best source of current EBP information?

1. Internet ☐

2. Paper journal ☐
3. Research reports ☐

Other (specify)_____

31. In the last one-year how many HIV positive mothers under your care required an episiotomy

1. More than 20 ☐
2. 15-20 years ☐
3. 10-15 ☐
4. 5-10
5. 1-5 ☐
6. 0 ☐

**SECTION D: ATTITUDE ON EVIDENCE BASED PRACTICE OF EPISIOTOMY**

| | 1 | 2 | 3 | 4 |
|---|---|---|---|---|
| 32. Evidence based practice on episiotomy places unnecessary demands on me | Strongly disagree | Disagree | Agree | Strongly agree |
| 33. Evidence based practice on episiotomy is important to my professional practice: I | Strongly disagree | Disagree | Agree | Strongly agree |
| 34. I need to increase the use of evidence in my daily practice | Strongly disagree | Disagree | Agree | Strongly agree |
| 35. Strong evidence is lacking in most interventions used in clinical practice | Strongly disagree | Disagree | Agree | Strongly agree |
| 36. In my opinion evidence based practice help to make decisions about patient care. | Strongly disagree | Disagree | Agree | Strongly agree |

37. In your opinion which episiotomy do you prefer (in terms of faster healing, easy to repair, with fewer complications)?

1. Mediolateral ☐
2. Midline ☐

38. In your opinion which form of episiotomy are you comfortable performing

1. Routine episiotomy ☐
2. Selective episiotomy ☐

39. How do you rate yourself in the ability to critically review professional literature?

1) Confident (4-5 points) ☐
2) Fairly confident (3 points) ☐
3) Poorly confident (1-2) points ☐
4) Not confident (0) points ☐

**SECTION E: DOCUMENTS ON EVIDENCE BASED PRACTICE.**

40. Practice guidelines on evidence based practice of episiotomy are available in the unit.

1) Yes ☐ 2) No ☐ 3) not sure ☐

41. If yes, how often are they reviewed and updated?

1) Quarterly ☐ 2) yearly ☐ 3) As needed 4) Not sure ☐ 5) other_____

**THANK YOU FOR YOUR COOPERATION**

**APPENDIX II: Consent form**

**Title of the study: Evaluation evidence based episiotomy practice by the midwives.**

My name is Teckla Kemboi Ngotie. I am a level II Masters Student at the University of Nairobi, School of Nursing Sciences. I request you to participate in the medical study. The main objective of the study is to evaluate evidence based practice of episiotomy by the midwives.

You will be required to respond to questions in a given questionnaire or participate in a Focus Group Discussion: your participation is entirely voluntary. Your participation will help in providing information that will assist in improving the quality of nursing practice and patient care. Note that there are no risks related to participation in the study.

Your confidentiality will be safeguarded i.e. your identity and records relating to your participation will remain confidential. Names of the participants will not appear in any final reports. Feel free to ask the investigator for any clarifications for any unclear information on this sheet.

In case of any concerns or problem, please contact any of my supervisors or myself using the following number: 0722 154 500 or KNH Research and Ethics Committee at 2726300 extension 44102.

**Participant**

I _____ have fully understood the objectives of the research and I hereby voluntarily sign as a show of willingness to participate in the study.

Signature: _____Date:_____

Witnessed by: _____Date: _____

**APPENDIX III: Focus group discussion guide**

The aim of this study is to evaluate evidence based episiotomy practice by the midwives.

This is an interactive participation. Please note that, the stated facts shall be confidential and shall be used only for the purpose of research. No name shall be mentioned anywhere to promote confidentiality.

There are some sensitive and personal information that you are encouraged to share, these will be held with respect and shall never be divulged to anyone. We shall be very grateful for your cooperation. Your participation will contribute to improvement of reproductive health in PMH and in Kenya. There is no risk involved in the participation of the study. There will be total confidentiality in handling information provided.

I have been clearly explained and fully understand the purpose of the study and freely consent to participate. I have signed to confirm this.

Signature.....Date.....

I, the undersigning have fully explained the relevant details of this study to persons whose signatures have been given above.

Name .....Signature.....Date.....

Date of FGD.....

Venue of FGD.....

Mode of recording information.....

No. of recruited FGD discussants.....

**Questions for discussion**

1. What are the views of the midwives on evidence based nursing practice on episiotomy
2. How much of EBP on episiotomy is being practiced at PMH
3. What are some of the criteria being applied by the midwives in performing an episiotomy?
4. How is the accessibility of research reports on evidence based nursing practice of episiotomy?
5. What are the barriers to implementation evidence based practice of episiotomy?
6. Does the facility have guidelines addressing evidence based practice of episiotomy?
7. How often are they reviewed to reflect current practice?
8. Who reviews the evidence based guidelines that are available in the unit?
9. What are some of the efforts being put by the administrators to uphold implementation of evidence based practice of episiotomy?
10. How will evidence based nursing practice on episiotomy clinical improve practice?
11. What are the challenges faced by the midwives in implementation of EBP of episiotomy
12. What are some of the solutions and recommendations to improving evidence based practice of episiotomy?
13. What should be done to improve the status quo?

**APPENDIX IV: Key informant guide**

The aim of this study is to evaluate evidence based episiotomy practice by the midwives.

This is an interactive participation. Please note that, the stated facts shall be confidential and shall be used only for the purpose of research. No name shall be mentioned anywhere to promote confidentiality.

There are some sensitive and personal information that you are encouraged to share, these will be held with respect and shall never be divulged to anyone. We shall be very grateful for your cooperation. Your participation will contribute to improvement of reproductive health in PMH and in Kenya. Please note that there is no risk involved in the participation of the study. There will be total confidentiality in handling information provided.

I have been clearly explained and fully understand the purpose of the study and freely consent to participate. I have signed to confirm this.

Signature.....Date.....

I, the undersigning have fully explained the relevant details of this study to persons whose signatures have been given above.

Name .....Signature.....Date.....

**Questions**

1) What is your role in relation to evidence based practice of episiotomy?

2) Does the facility have policies and guidelines on evidence based practice of episiotomy?

3) What are some of the plans put in place to ensure that the midwives get updated information on evidence based practice of episiotomy?

4) What are some of the barriers to evidence based practice of episiotomy?

**APPENDIX V: Letter of approval from Pumwani Maternity Hospital ethics committee**

# PUMWANI MATERNITY HOSPITAL

Tel: 02/6763291 – 4
Fax: 02/6762965

P.O. Box 42849
Code: 00100- GPO
Nairobi

PMH/DMOH/98/09

24TH JUNE 2009

**TO: Ms. TECKLA KEMBOI - NGOTIE**
**SCHOOL OF NURSING, UoN**

**RE: APPROVAL FOR RESEARCH**

This is to inform you that the Pumwani Maternity Hospital Ethical and Research Committee has reviewed and approved your research proposal entitled **"Evaluation of Evidence Based Episiotomy Practice by the Midwives at PMH, Labour Ward, Nairobi"** .

By this letter authority is hereby granted for you to begin your research undertakings here at Pumwani Maternity Hospital. However, rules governing the Hospital should be observed and upon completion of your study you are expected to submit a copy of your research findings.

We wish you all the best.

DEPUTY MEDICAL OFFICER
OF HEALTH
PUMWANI MATERNITY HOSPITAL

**DR C. WANYONYI**
**MEDICAL SUPERINTENDENT**

**APPENDIX III: Focus group discussion guide**

The aim of this study is to evaluate evidence based episiotomy practice by the midwives.

This is an interactive participation. Please note that, the stated facts shall be confidential and shall be used only for the purpose of research. No name shall be mentioned anywhere to promote confidentiality.

There are some sensitive and personal information that you are encouraged to share, these will be held with respect and shall never be divulged to anyone. We shall be very grateful for your cooperation. Your participation will contribute to improvement of reproductive health in PMH and in Kenya. There is no risk involved in the participation of the study. There will be total confidentiality in handling information provided.

I have been clearly explained and fully understand the purpose of the study and freely consent to participate. I have signed to confirm this.

Signature.....Date.....

I, the undersigning have fully explained the relevant details of this study to persons whose signatures have been given above.

Name .....Signature.....Date.....

Date of FGD.....

Venue of FGD.....

Mode of recording information.....

No. of recruited FGD discussants.....

**Questions for discussion**

1. What are the views of the midwives on evidence based nursing practice on episiotomy
2. How much of EBP on episiotomy is being practiced at PMH
3. What are some of the criteria being applied by the midwives in performing an episiotomy?
4. How is the accessibility of research reports on evidence based nursing practice of episiotomy?
5. What are the barriers to implementation evidence based practice of episiotomy?
6. Does the facility have guidelines addressing evidence based practice of episiotomy?
7. How often are they reviewed to reflect current practice?
8. Who reviews the evidence based guidelines that are available in the unit?
9. What are some of the efforts being put by the administrators to uphold implementation of evidence based practice of episiotomy?
10. How will evidence based nursing practice on episiotomy clinical improve practice?
11. What are the challenges faced by the midwives in implementation of EBP of episiotomy
12. What are some of the solutions and recommendations to improving evidence based practice of episiotomy?
13. What should be done to improve the status quo?

**APPENDIX IV: Key informant guide**

The aim of this study is to evaluate evidence based episiotomy practice by the midwives.

This is an interactive participation. Please note that, the stated facts shall be confidential and shall be used only for the purpose of research. No name shall be mentioned anywhere to promote confidentiality.

There are some sensitive and personal information that you are encouraged to share, these will be held with respect and shall never be divulged to anyone. We shall be very grateful for your cooperation. Your participation will contribute to improvement of reproductive health in PMH and in Kenya. Please note that there is no risk involved in the participation of the study. There will be total confidentiality in handling information provided.

I have been clearly explained and fully understand the purpose of the study and freely consent to participate. I have signed to confirm this.

Signature.....Date.....

I, the undersigning have fully explained the relevant details of this study to persons whose signatures have been given above.

Name .....Signature.....Date.....

**Questions**

1) What is your role in relation to evidence based practice of episiotomy?

2) Does the facility have policies and guidelines on evidence based practice of episiotomy?

3) What are some of the plans put in place to ensure that the midwives get updated information on evidence based practice of episiotomy?

4) What are some of the barriers to evidence based practice of episiotomy?

**APPENDIX V: Letter of approval from Pumwani Maternity Hospital ethics committee**

# PUMWANI MATERNITY HOSPITAL

Tel: 02/6763291- 4
Fax: 02/6762965

P.O. Box 42849
Code: 00100- GPO
Nairobi.

PMH/DMOH/98/09

24TH JUNE 2009

**TO: Ms. TECKLA KEMBOI - NGOTIE**
**SCHOOL OF NURSING, UoN**

**RE: APPROVAL FOR RESEARCH**

This is to inform you that the Pumwani Maternity Hospital Ethical and Research Committee has reviewed and approved your research proposal entitled **"Evaluation of Evidence Based Episiotomy Practice by the Midwives at PMH, Labour Ward, Nairobi"** .

By this letter authority is hereby granted for you to begin your research undertakings here at Pumwani Maternity Hospital. However, rules governing the Hospital should be observed and upon completion of your study you are expected to submit a copy of your research findings.

We wish you all the best.

DEPUTY MEDICAL OFFICER
OF HEALTH
PUMWANI MATERNITY HOSPITAL

**DR C. WANYONYI**
**MEDICAL SUPERINTENDENT**

## APPENDIX VI: Letter of approval from KNH research and ethics committee

**KENYATTA NATIONAL HOSPITAL**
Hospital Rd. along, Ngong Rd.
P.O. Box 20723, Nairobi.
Tel: 726300-9
Fax: 725272
Telegrams: MEDSUP", Nairobi.
Email: KNHplan@Ken.Healthnet.org

Ref: KNH/UON-ERC/ A/219

14th May 2009

Teckla Kemboi-Ngotie
Dept. of Nursing Sciences
School of Medicine
University of Nairobi

Dear Teckla

**Research proposal: "Evaluation of Evidence Based Episiotomy Practice by the Midwives at Pumwani Maternity Hospital, Labour ward, Nairobi" (P63/3/2009)**

This is to inform you that the Kenyatta National Hospital Ethics and Research Committee has reviewed and **approved** your above revised research proposal for the period 14th May 2009 –13th May 2010

You will be required to request for a renewal of the approval if you intend to continue with the study beyond the deadline given. Clearance for export of biological specimen must also be obtained from KNH-ERC for each batch.

On behalf of the Committee, I wish you fruitful research and look forward to receiving a summary of the research findings upon completion of the study.

This information will form part of database that will be consulted in future when processing related research study so as to minimize chances of study duplication.

Yours sincerely

**DR. L. MUCHIRI**
**AG. SECRETARY, KNH/UON-ERC**

c.c. The Chairperson, KNH/UON-ERC
The Deputy Director CS, KNH
The Dean, School of Medicine, UON
The Chairman, Dept. of Nursing Sciences, UON
Supervisors. Dr. Grace Omoni, Dept.of Nursing Sciences, UON
Dr. Blasio Omuga, Dept.of Nursing Sciences, UON
Dr. James Mwaura, Dept.of Nursing Sciences, UON

**APPENDIX VII: Letter of clearance from the ministry of education**

REPUBLIC OF KENYA

NATIONAL COUNCIL FOR SCIENCE AND TECHNOLOGY

Telegrams: "SCIENCETECH" Nairobi
Telephone: 254-020-241349, 2213107
254-020 310571, 2213123
Fax 254-020-2213215, 318245, 318249
When replying please quote
Our Ref. NCST/5/002/R/433/5

P. O. Box 30623 00100
NAIROBI-KENYA
Website: www.ncst.go.ke

Date: 15th June 2009

Ngotie Tecla Kemboi
University of Nairobi
P.O. Box 30197
NAIROBI

RE: RESEARCH AUTHORIZATION

Following your application for authority to carry out research on, ***Evaluation of Evidence Based Episiotomy Practice by the Midwives at Pumwani Maternity Hospital Labour Ward, Nairobi'***

I am pleased to inform you that you have been authorized to carry out research in Pumwani Maternity Hospital, Nairobi for a period ending 30th August 2009

You are advised to report to the Director Pumwani Maternity Hospital before embarking on your research

On completion of your research, you are expected to submit two copies of your research report/thesis to this office

PROF. S. A. ABDULRAZAK Ph.D, MBS
SECRETARY

Copy to

The Director
Pumwani Maternity Hospital
NAIROBI

**APPENDIX VIII: Overview of the study area**

Pumwani Maternity Hospital (PMH) was founded in 1926 as the lad Griggs welfare. The Nairobi city council took over the hospital's management in 1944. PMH is located in Pumwani division, Kamukunji constituency on the Eastern part of Nairobi city, Kenya. Pumwani has a total population of 29,616 out of a total of 201, 783 people in the entire constituency.

PMH is an obstetric hospital for delivering expectant mothers and provides post natal, family planning and Kenya Expanded Program on Immunization services. It also provides other medical services.

An average of 60 babies are delivered daily with the number growing over the years to about 27,000 a year. The hospital has a bed capacity of 350. The hospital employs about 90 midwives with 14 of them on duty during every shift working in the labour ward ant surgical theatre. There are 150 bed nursery that is supervised by two paediatricians.

PMH has a school of midwifery within the hospital which trains Kenya Registered Midwives as well as Kenya Enrolled Midwives in accordance with the syllabus laid down by the Nursing Council of Kenya. PMH is one of the largest maternity hospitals in Kenya and a clinical teaching setting for medical training schools including the university of Nairobi department of Obstetrics and Gynaecology.

# FACTORS AFFECTING DOCUMENTATION OF INTRAOPERATIVE NURSING CARE AT KENYATTA NATIONAL HOSPITAL MAIN THEATRE


BY

ROSE M. WAFUBWA, BScN (UON)

H56/P/8414/06

A RESEARCH PROJECT SUBMITTED IN PARTIAL FULFILLMENT OF THE REQUIREMENTS FOR THE AWARD OF THE DEGREE OF MASTER OF SCIENCE IN NURSING (CRITICAL CARE) OF THE UNIVERSITY OF NAIROBI.

2008

# SUPERVISORS

1. PROFESSOR JOYCE MUSANDU, PhD (AWU), MScN (Boston).
   Senior Lecturer, School of Nursing Sciences, University of Nairobi,

   Sign..... Date... 3rd Nov. 2008

2. DR JAMES MWAURA, PHD (BIU,Madrid) MSc (Clinical Psychology) (UON), BScN (UON),
   Lecturer, School of Nursing, University of Nairobi,

   Sign..... Date... 3rd November 2008

3. MRS THERESIA M.A. ODERO. MSc (Health Promotion) (Leads U.K), RN, RM, RCCN, Dip Health Edu.
   Lecturer School of Nursing Sciences, University of Nairobi

   Sign.....Date... 3rd Nov. 2008

This work has been submitted for examination with the approval of the school of nursing sciences, University of Nairobi.(U.O.N)

Sign..... Date... 4/11/2008.....

**THE Ag. DIRECTOR, SCHOOL OF NURSING SCIENCES, (U.O.N)**

SCHOOL OF NURSING SCIENCES
Ag. DIRECTOR
4 NOV 2008
UNIVERSITY OF NAIROBI
P.O Box 30197, NAIROBI

# DECLARATION

I Rose M. Wafubwa declare that this proposal is my original work and not presented in any other institution for the award of degree or diploma.

Sign..... Date.....3rd Nov 2008.....

# DEDICATION

I dedicate this research to all practicing theatre nurses for the cooperation I received from them during my study. To my lecturers for their patience and sound counsel. To all my family for their love, understanding and support during my long period of absence while studyi

# ACKNOWLEDGEMENT

I would like to thank the Kenyatta National hospital for the release and sponsorship they awarded me to undergo a master program at the University of Nairobi. To my lecturers at the school of nursing sciences I would like to thank them for their guidance and support. To my supervisors; Dr Musandu, Dr Mwaura, and Mrs Odero who worked tirelessly to ensure to ensure that I beat the deadline and complete my studies on time. To Mr. Nyambola a lecturer at the department of public health for the support and guidance he offered me in the report writing. To Mrs. Omondi and Mr. Mbithi, the operating room nursing course teachers, for assisting me with resource materials and also allowing me to use their office facilities. To Mr. Munio the biostatician, for the assistance he offered me in the analysis of data and to Nyaga Emily and Kyalo Mutisya, my two classmates, for their continuous encouragement and support.

# TABLE OF CONTENT

# Operational definitions

**Adequate nursing documentation:** Specifies what, when, where and by whom nursing actions are charted.

**Documentation**: charting of patients proceedings

**Intraoperative:** period taken in the operating theatres

**Intra operative nursing documentation**: charting of nursing notes within operating theatres

**Operating theatre**: Includes pre-admission/pre-surgery holding areas (receiving area) through operating suits (operating rooms) to the post anesthesia care unit (recovery ward).

**Perception:** These are the beliefs and attitude the nurses have on documenting their nursing care in patients file.

**Perioperative**: includes the pre and post surgical wards and operating theatres

**Proper documentation:** adequate nursing documentation

**Theatre nurse managers:** These are the nurses with a designation of senior nursing officers and above performing managerial duties in the theatres

**Time factor:** The time nurses find to be available for them to attend to each of the patient under their care and document the same care given

**Traffic in:** The receiving area of the operating theatre through where patients' admission in the is done

**Traffic out:** An area in operating room for discharging patients.'

# Abbreviations

**ANA-American** Nurses Association

**AORN** Association of Operating Room Nursing

**BScN** Bachelor of Science in nursing

**EN** Enrolled nursing

**ENT** Ear nose and throat

**KAP** Knowledge attitude and practice

**KEMRI** Kenya Medical Research institute

**KMTC** Kenya Medical Training College

**KNH** Kenyatta National Hospital

**NBTS** National blood transfusion service

**OR** Operating room

**PNDS** Perioperative Nursing Data Set

**RA** Receiving area

**RCHN** Registered community health nursing

**RN** Registered nursing

**RN** Registered nursing

**RW** Recovery ward

**SPSS** Statistical Package for Social Sciences

**TSSU** Theatre sterile service unit

**UON** University of Nairobi

# List of tables

# List of figures

# Abstract

Documentation plays a key role in the construction of social reality (Anderson 2006, Levy 2003, Searle 1996). A descriptive cross-section study conducted among nurses working at Kenyatta national hospital (KNH) main theatre within a period of 9 months, where both qualitative and quantitative methods used to collect data. The study aimed at determining factors affecting documentation of intraoperative nursing care given to patients while undergoing surgery in KNH theatres.

A self-administered structure questionnaire for the respondents, an interview guide for face-to-face interview of the key informants and an observation guide using the record files of patients who were ready for discharge from the unit back to the ward to collect data on intraoperative nursing documentation. A simple random sampling method was used to select a sample of 83 out of 96 qualified nurses, employed by KNH and working in the operating theatre, who were willing to participate in the study.

The results showed Results showed that knowledge on hospital policy and perception which included; lack of time, lack of provision in file to document and perception that no nursing is done in theatre were statistically significant to intraoperative documentation ($p < 0.05$). The study concluded that nurses perception and knowledge on hospital policy affected intraoperative nursing care documentation.

# CHAPTER 1

## 1.1 Introduction

Theatre is a critical care area. The care provided by nurses in theatres is important and need to be documented in order to be complete. Nursing documentation can also be a legal support in case of litigation. According to Paice; Mahon and Faut-collahan (2004), documentation is a way of giving high quality patient care and not just for legal purposes. Therefore lack of proper documentation can negatively impact patient care and can ultimately cause other problems.

Mecker and Rothrock (1996) said that accurate nursing care documentation is an integral part of all phases of nursing process. This is more so at the implementation and initiation of the plan of care. Therefore documentation of nursing care given in theatres should include more than technical aspect of care, such as sponge count or application of electrosurgical dispersive pad. The two continued to say that documentation should take little time to complete. It should be specific to intraoperative setting and provide continuation across the various areas in surgery from pre-surgery holding area to post anesthesia care units.

## 1.2 Background information

Lewis (2002) said that all communication takes place in a context, which includes at least the shared understanding of the parties communicating. Romano (1989) explained that in the creation and distribution of documents, there are a number of roles in which people are involved. An individual or a group who process these documents may perform each of these roles. Park (2005) defined documentation, a document and to document. In

these definitions, documentation meant any communicable material (such as text, video, audio etc or combination thereof) used to explain some attributes of an object, system or procedure. A document meant a bounded physical representation of body of information designed with the capacity and usually intent to communicate. To document meant to produce a document artifact by collecting and representing information

Wesch (2006) stated that historical documents contain important information about a person, place, or event. Many documents produced including medical records would be considered valuable historical documents in their future. However, most of these documents would be lost in the future. This was because they were either printed on ordinary paper which had a limited lifespan or on digital format that become obsolete in a relatively short period. This made the future of documents to evolve on a trajectory of radical evolution, which requires fundamental reconceptualization.

On the social aspect, documentation played a key role in the construction of social reality. Therefore documentation played part in accounts of every important aspect of human society and culture. An example of this type of account was in the seminal account of the role of print in political evolution, "Imagined communities." This aspect led to a definition of a document as a "talking thing" that is, strengths and weakness arising both from its relative (historical) immutability with aspect to oral forms of communication (Anderson 2006; levy 2003; Searle 1996).

(Gladwell, 2002; Herper and Sellen, 2001) added that, documents in digital and physical forms manifest various "affordances" which determine their uses

In this relation therefore, documentation of nursing or any other care given to patient and more so to those undergoing operations is very important. Therefore, all efforts should be put in place to actualize it. This research has documented what was currently being practiced and has answered questions of the research.

## 1.3 Statement of the problem

Documentation is important for continuity of care because it prevents fragmentation, repetition, and delay in patient care (Wilkinson 2001). Selender (1998) concurs that documentation allows other care givers to follow the plan of care for patients. Documentation of intraoperative nursing activities is very important both legally and professionally. This is because such documents serve as communication tool for nurses resuming postoperative care of patients (Fairchild 1993). Without documenting nursing care in the patient file, it becomes difficult to provide continuity of care by subsequent care providers (Wilkinson 2001)

The researcher experienced inadequate documentation by nurses during her period of assignment in the unit for 15 years. There were incidences when queries were made about patient care during the intraoprative period of surgery. It was discovered that in such cases, the other surgical team members namely surgeons and anesthetist had well documented notes. However, nursing notes pertaining patient care had inadequate information pertaining patient care or missing all together.

The practice in KNH was that, when handing over the patient to the postoperative surgical ward nurse, documentations in the patient file were; - the surgeon's notes written on operation notes summary paper and the anesthetist notes on the anesthetic chart. However, the only nurses' record seen was the observation of vital signs (temperature, pulse, respirations, and blood pressure) written behind the anesthetic chart. This proved that there was inadequate information documented concerning the intraoperative nursing care yet a lot of nursing care intervention is executed intraoperatively. One may then ask "is it that the circulating nurse is not taking advantage of the only opportunity she has to document intraoperative nursing care? Or is there knowledge deficit on intraoperative nursing care documentation among nurses? Why are nurses not having a proper nursing record chart or Kardex to write on their executed interventions?"

According to Fairchild (1993), the circulating nurse should take the opportunity when the surgical team has settled, to compile all the intraoperative notes, having received report from the receiving area nurse. Upon completion of surgery, the circulating nurse should hand over verbal and documented report to post anesthetic room nurse, who completes the care before handing over the patient to the ward.

Despite the observations made, no research has been done to quantify and explain the inadequacy of nursing documentation in this unit. This study hoped to find out why intraoperative nurses do not document their care in the patient's file

## 1.4 Justification of the study

Nurses at KNH operating theatres might be documenting the care given to the patients. However, the same records are not put in patient's record file for other nurses to use post-operatively, posing a risk of fragmentation of nursing care. This may lead to low quality patient care and lack of reference in legal matters are some of the effect of improper/ lack of nursing documentation. This shows that proper documentation is very important on the aspect of patient care to be missed out and something needs to be done to address the cause to this.

Navaluri (2001) said, that what we chart and how we chart speak for us and about us by displaying our competence, our professionalism, our respect for patients/their families, our relationship with our colleagues on the team, and our degree of compliance with the policies and procedures at the facility (institution) we work for. This makes good documentation and good patient care to be two sides of the same coin. According to Paice et al (2004), when patient's medical records or Nursing documents are lost, destroyed or tempered with, health care providers must prove that they were not negligent in order to avoid liability. If the documents are missing at the time of trial, the health care provider would be presumed negligent by the court and hence liable to punishment. Health care providers are automatically negligent when records are spoilt unless they prove otherwise and the situation is worse in the absence of documentation".

Nursing care is practiced in theatre, and intraoperative nursing documentation would provide evidence of the nursing care given and not given. This study is meant to assist nurses working at KNH main theatre adhere to institutions vision of being a centre of

excellence in patient care, research and education. This will be realized by nurses providing evidence to their quality patient care through documentation of this care in patients' record file. This investigation can also assist improve on availability of intraoperative nursing care charts in patients record file, which then can serve as secondary data base for other investigators in cases of research studies.

## 1.5 Aim of the study

The aim of the study was to establish the factors affecting documentation of intraoperative nursing care at KNH main theatre, during the three phases of perioperative period, namely; - pre-admission phase (receiving area), surgical phase (operating room) and post anesthesia recovery phase (recovery ward).

## 1.6 Research questions

1) What are the nurses' practices on intraoperative nursing documentation?
2) What are the nurses' perceptions towards documentation of the care given to their patients intraoperatively?
3) Do the nurses have knowledge and skills of documenting intraoperative nursing care?
4) Do the nurses' experiences in theatre influence intraoperative nursing documentation?
5) Do the nurses' professional qualifications influence intraoperative nursing documentation?

## 1.7 Broad objective

To determine the factors affecting documentation of intraoperative nursing care among nurses at KNH main theatres.

## 1.8 Specific objectives

1. To assess the nurses practices on intraoperative nursing care documentation.
2. To assess the nurses perception towards documentation of their nursing care within the operating theatres.
3. To assess the effect nurses' professional qualification has on intraoperative nursing documentation.
4. To assess the effect nurses' experience has on intraoperative nursing documentation.
5. To assess the knowledge nurses' have on intraoperative nursing documentation.

## 1.9 Study benefits

This study expectation was to improve postoperative follow up care of patients who have undergone surgery in the institution. This would be because of the continuity of quality nursing care given to these patients intra-operatively. The study was also expected to promote job satisfaction of theatre nurses and of those nurses in surgical wards as a result of continuity in patient care. This was meant to improve nursing professionalism among theatre nurses at KNH. The quality nursing care would reduce the Hospital cost of managing surgical patients in terms of inpatient space and time, money, material, and therefore reduce the inpatient congestion.

## 1.10 Study assumptions

The researcher assumed that the qualified nurses working in KNH theatres faced similar challenges, which prevented them from documenting their patients care in the patients' record file regardless of their level of basic training.

The researcher also assumed that all the qualified nurses were to be available for the study and were to answer the questions.

## 1.11 Study limitation

- Nurses might have felt unwilling to give information out of fear of exposing themselves. To overcome this limitation, nurses were assured through the consent explanation form that information given was for study benefit and that they were not to be victimized whatsoever,
- Operating theatre being a busy and intensive care area, nurses might have found themselves too busy to attend to the questionnaires, or might have answered the questionnaire in a hurry not giving quality answers to the best of their knowledge. To overcome this, the study benefit to the patient, nurse, and institution were explained to them in the consent explanation form. It was assumed that once they understood these, they would give their time to the questionnaire and return the fully filled in questionnaires.

# CHAPTER 2

# LITERATURE REVIEW

## 2.1 Introduction to literature review

This chapter discuses literature review related to nursing documentation in operating theatres. It contains the theoretical and conceptual framework, definition of documentation, reasons for documenting and documentation in relation to nursing.

## 2.2 The definition of documentation

Navuluri (2001) said documentation is the creation of an authentic record of patient care. Navuluri cited the nurses' legal handbook (1987) and defined documentation as, preparing and assembling records to authenticate the care nurses give to their patients as well as the reasons for giving that care. Navuluri further quoted the new international Webster's dictionary which describes documentation as a written or printed matter conveying authoritative information, records or evidence.

As explained earlier, Park (2005) defined documentation in general terms, to be any communicable material used to explain some attributes of an object, system or procedure. A document meant a bounded physical representation of body of information designed with the capacity and usually intent to communicate. To document meant to produce a document artifact by collecting and representing information.

## 2.3 Importance of documenting intraoperative nursing care

Fairchild (1993) explained that, it is from nursing diagnosis after assessments that are goals derived. These goals are usually achieved through a plan of care which prescribes the nursing actions. This plan is then implemented during intraoperative phase. It is the implementation phase of the nursing process that documentation of all the nursing activities performed becomes very important, both legally and professionally. This is because such documents serve as a communication tool for the nurse resuming post operative care of the patient.

Fairchild (1993), based her argument on Nursing practice standards (NPS). NPS are the prescribed statements that reflect the nature of current Nursing practice, current knowledge and current quality of patient care. As such, they are means for establishing accountability of nursing care rendered by the professional nurse. Fairchild further explained that, based on the standards and recommended practices for intraoperative nursing as per the Association of operating room nurse (AORN), the operating room nurse provides a continuity of care throughout the intraoperative period. The nurse does so by using scientific and behavioral practices with the eventual goal of meeting the individual needs of the patient undergoing surgical intervention.

Fairchild added that standards provided uniformity of intraoperative nursing practice on national level and are revised to accommodate changes in theory, skills and knowledge of nursing practice during intraoperative period. The quality of nursing care is measured based on acceptable standards of practice which are based on nursing process and not vice versa.

The explanation advanced by Fairchild's supported by Paice et al (1991) who stated that, documentation does impact the quality of care given and the reason for complaint that "no one reads our charts" is because nurses do not say what they need to be said. Paice continued to say that documentation must be accurate, clear, concise, complete, and timely. They continued to say that speed in health care is of essence but accuracy and completeness are imperative when documenting. Paice et al (1991) further pointed out that documentation must have meaning all the time as one never know when what is documented would be needed. Hence, one should make sure that right information documented and this documentation done correctly. The conclusion was that nurses are supposed to be communicators especially when documenting patients' information. So if what a nurse writes does not communicate, then the nurse would have failed in the professional and legal responsibilities. More so, he/she would have failed the patients and employee, thereby putting all at risk.

Intraoperatively, the factors related to care plan as mentioned by Fairchild (1993) include among others; -

- Plan that specifies what, when, where and by whom nursing actions are performed; plan which reflects intraoperative assessment, and include but not limited to;- intraoperative teaching, verification of all documents, adherence to principals of asepsis, positioning safely, monitoring psychological and physiological support, communication method and documentation of nursing activities performed. Fairchild therefore sums up by stating that documentation provides a continuous picture of the

status of the patient to all persons providing care. That accurate documentation also may protect the nurse and the institution from lawsuits.

Fairchild's conclusion supports strongly by an article in a legal Eagle eye newsletter for the Nursing profession (2006). In this article, it describes a case where the patient sued the surgeon and the hospital for over persistent numbness of her right hand after a total hip replacement done on her. Her suit alleged that the numbness was due to an ulna nerve injury from improper positioning or from surgeons pressing on her arm or hand during surgery. In this case it happened that a detailed record was made in the chart by the circulating nurse of the positioning of the patient for the right total hip replacement. The nurse's entry was written in the operating room at the time of the event in question, not after the fact. The circulating nurse noted how the body was positioned; she stated how each hand and arm was padded and how each arm was extended to keep it away from where the surgeons would be standing.

It was critical that the nurse wrote a detailed statement exactly how the patient was positioned and padded. She refrained from unsubstantiated judgmental assertion that merely stated that the patient was positioned properly or in a manner designed to avoid injury. Therefore when the expert medical witness reviewed the circulating nurse's notes, they all concluded that it established affirmatively the positioning and stabilizing of the patient body and arms, and the cushioning her right hand and arm during surgery was done. In this case, it was the circulating nurses documentation of the patient's position that carried the day as the nurses notes was proof of 'no negligence had occurred'.

The discussion can also be strengthened with what is in "the nurses' legal handbook (1987); England (1988) as quoted by Navuluri (2001). Here, nursing documentation was seen to be necessary in order to: - finish authoritative information on patient care; help verify quality of care; assist in the coordination of care; ensure continuity of care; seek reimbursements; comply with regulations of the government and accrediting organizations; provide evidence in the court of law; and to generate data for research. Thus, quotes Navuluri (2001), that the purpose of documentation reflects the fundamental values of authenticity, quality, accountability, responsibility, profcssionalism, and survival.

## 2.4 Documentation in relation to nursing

Documentation of nursing process is an important but often neglected part of clinical practice Elska (2006). This supports Paone (1994) view, which reported that, documentation of nursing care is fundamental means of communicating amongst nurses. That the first step in the process of developing an effective communication link is to categorize and describe what hospital nurses have recorded on nurses' notes about the care they have provided to the patient.

With the ongoing emphasis on resource management, cost control, efficiency in patient care, quality improvement and accountability, nurses are required to provide quality patient care and do effective documentation at the same time even when there is shortage of staffs, (Navuluri R.B, 2001). In this relation, Lange-knitse and Meadows (2002) said that operating room generates approximately 42% of a health care organization's patient

revenue. They further explained that perioperative nursing data set (PNDS) is a standardized nursing vocabulary that addresses the surgical patient from pre-admission until discharge. They said that PNDS is a constant comprehensive language for prescribing patients safety, physiological and behavioral responses in the operating room. They add that PNDS makes it easier for intraoperative nurse to completely and efficiently document their desired patient outcomes, nursing diagnosis, and clinical intervention. This is in line with what Paice et al (1991),said when she stated that documentation must be accurate, clear, concise, complete and timely; and that speed in health care is essence but accuracy and completeness are imperative when documenting. As such then PNDS will cater for those critical aspects of nursing in documenting.

Historically the patients' charts have been the primary source of information about health care quality (Lange-knitse and Meadow 2002). The two continued to say that documented evidence of the nursing care process has been used as an indicator of quality in both quality assessment and research. Hence the PNDS is the first, and to date, the only nursing language developed by a specialty organization that has been recognized by the American Nurses Association (ANA) as a data set useful for perioperative nursing practice. Lange-knitse and Meadow further explained that clinical user satisfaction also improves when clinician spends less time documenting care and more time delivering it. That this makes the patients report higher satisfaction with improved care as well.

Studies have shown that with documentation of PNDS, nursing interventions increase as much as 90% with use of nursing information system (AORN congress 2002). Therefore

easier documentation helps providers ensure consistent measurable care delivery while increasing staff productivity. As such, use of PNDS is able to fulfill what Elska (2006) suggested by saying that, nurses are continuously challenged to make increasingly complex decisions affecting patient care. That the future direction of nursing documentation needs to reflect the nursing judgment, the interventions and the evaluation of care that surrounds these complex decisions. Elska also mentioned that, nurses' document information about patient care as a matter of fulfillment of their legal and professional responsibilities. That although documentation is believed to be an important means of communication amongst nurses, it is apparent that the nurses' notes are not primary means of communication.

Navuluri (2001) in conclusion explained that nurses are required to document all patients care interventions from the moment they enter a professional relationship with a patient and his or her family. That the beginning and end of this relationship is governed by; - workplace policies/procedures, our professionalism in implementing the nursing process and the condition of the patient. Navuluri further said that, nursing staff and non nursing staff all do documentation for the purpose of coordinating care; hence our documentation reflects coordination as opposed to subordination. So any documentation by anyone is important as patients also self document some information like pain, blood glucose, etc.

As was evident from then foregoing literature, the importance of documentation in nursing practice could not be overemphasized and therefore this study was meant to shed light as to why in operating theatres KNH this was not being done.

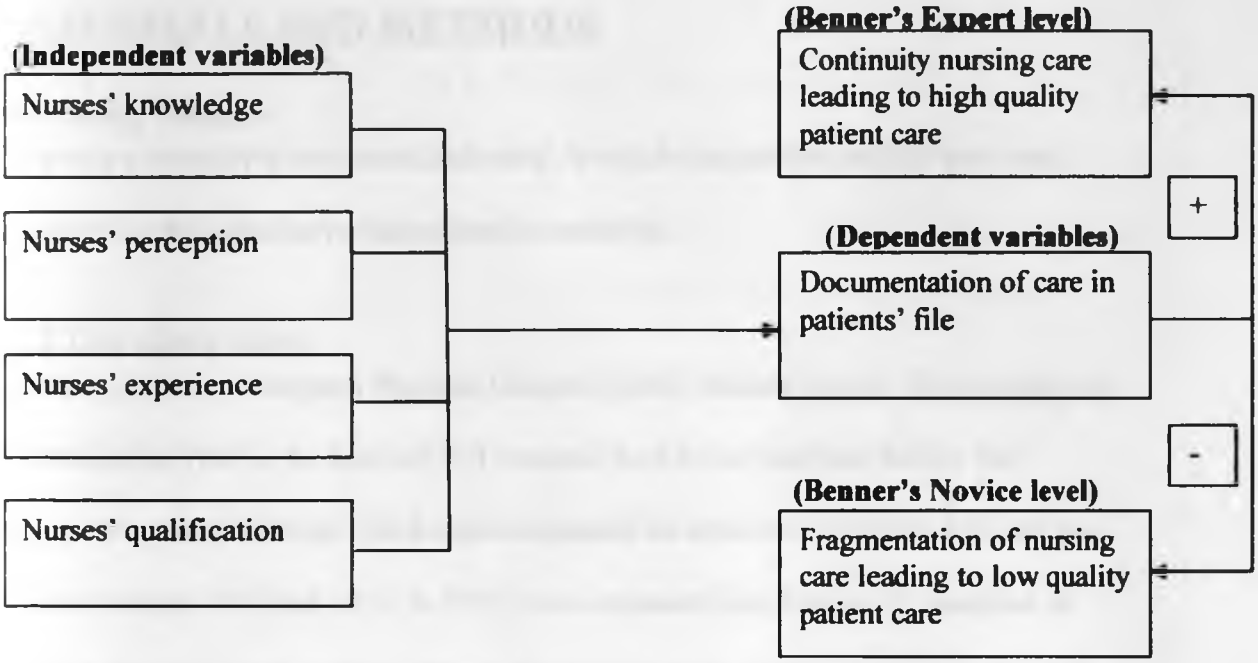
## 2.5 Theoretical framework of the study

Benner (1984) tried to discover and describe the knowledge embedded in nursing practice. She believed that nurses had been delinquent in documenting their clinical learning. That this lack of charting of nursing practice and clinical observations deprives nursing theory of uniqueness and richness of knowledge embedded in expert clinical practice. In Benner's work from Novice to expert, she applies Dreyfus model of 'skill acquisition', which describes five levels of skill acquisition and development as being, Novice, Advanced beginner, Competent, Proficiency and Expert.

Using Benner's theory, inadequate documentation of nursing care is a poorly articulated area of nursing practice, which needs brought to the public discourse. Actual performance of nursing practice by theatre nurses is at the proficient /expert level of Dreyfus model while documentation of nursing care is at novice level of the model.

Viewed from the assumptions of this model, the research expected to elicit information that would inform policy and improve practice.

## 2.6 Conceptual frame work of the study




The conceptual framework proposed that, the independent factors (knowledge, qualification, perception, and experience of nurses) affect the dependent factor (documentation of care in patient file) positively or negatively. When affected positively, there is documentation of care in patients' file. This will results to continuity of nursing care leading to high quality patient care. However, when affected negatively, there is no documentation of care in patients file leading to fragmentation of nursing care leading to low quality patient care.

# CHAPTER 3

# MATERIALS AND METHODS

## 3.1 Study design

This was a descriptive cross-sectional study, in which tringulation method were used (qualitative and quantitative data collection methods).

## 3.2 The study area

The study area was Kenyatta National Hospital (KNH) Nairobi Kenya. The hospital was established in 1901 as the Native Civil Hospital, with a two ward bed facility for European settlers in Kenya. The hospital expanded its services to cater for Africans and Asians between 1922 and 1937. In 1952 it was renamed King George V1 Hospital. In 1966, following Kenya's independence, the Hospital took its present name, in honor of the founding president of the republic of Kenya, Mzee Jomo Kenyatta. It became a state corporation in 1987. KNH is at the apex of the Hospital referral system in Kenya.

The Hospital covers an area of 45.7 hectares. The institution works closely with Kenya Medical Training College (KMTC), The University of Nairobi College of health sciences, Kenya Medical Research Institute (KEMRI), Government Chemist Department, National Radiation Protection Centre, National Health Laboratories and National Blood Transfusion Services (NBTS) of the ministry of health. The Hospital has a core function as a National referral Hospital providing specialized quality health care; facilitation of training and research, and participation in National Health planning and policy, for the benefit of the Nation and region at large.

The Hospital has 24 operating theatres, 16 of which are specialized. The main operating theatre is situated on 1st floor of the tower block. It is adjacent to the intensive care unit, the burns unit, the newborn unit and the renal unit. The theatre sterilizing service unit (TSSU) is on ground floor below it connected to theatre via sterile lifts for sterile parks, dirty lifts for used parks and a staircase. Theatre has 3 TSSU stores of which each serves 4 operating suits and is here where sterile parks are kept for easy access by theatres. Theatre consists of 12 operating rooms, recovery ward, offices, and traffic in and out. Of the 12 operating suits, 2 of them deal with 24 hour general emergency operations; 2 others deal with 24 hour operations of all private cases; and the remaining 8 suits deal with different elective specialized surgeries. This 8 operating suits are functional 8 hours per day, five days per week. This department has an establishment of 96 nurses and is headed by an assistant chief nursing officer assisted by three senior nursing officers of whom two of them deal with teaching and instructing of operating room students. Its functions are coordinated by theatre users committee under the chairmanship of a surgeon.

## 3.3 Study population

The study population consisted of the male and female qualified registered or enrolled nurses, working at KNH main theatre.

## 3.4 Sample size determination

The sample size was determined using the following Fisher's et al (1999) formula,

$$n = \frac{z^2.p.q}{d^2}$$

Where n = the desired sample size (if the target population is greater than 10,000.

z = the standard normal deviation at the required confidence interval.

p = the proportion in the target population estimated to have characteristics being measured.

q = 1-p

d = the level of statistical significance set

Since there was no estimate available information on the proportion of documentation among nurses, a proportion of 50% was used as recommended by Fisher et al. (1999). In this case the number of qualified nurses working at KNH main theatre, which made the study population, was 96. Since this number of 96 nurses, was less than the 10,000, the suggested formula for adjustment was applied. Therefore, the required adjusted sample size (nf) was calculated by the formula below

$$nf = \frac{n}{1+n/N}$$

Where nf = was the desired sample size with the target population of less than 10,000

n = was the desired sample size with the population of more than 10,000

N = was the estimate of the population size (= 96)

Therefore taking n to be: - $n = \frac{z^2.p.q}{d^2}$

At 95% confidence interval, estimate z value = 1.96, and the accuracy desired at 0.05 significant level (5%), then

$$n = \frac{(1.96)^2.(0.5).(0.5)}{(0.05)^2}$$

$$n = 384.16$$

$$\text{Hence } nf = \frac{n}{1+n/N}.$$

$$nf = \frac{384.16}{1+(384.16/96)}$$

nf = 76.8 which was approximately 77nurses

Therefore 77nurses needed to be included in the study. However, the actual sample size selected was 80 nurses. This was to cater for unreturned questionnaires.

## 3.5 Sampling method

A sample size of 83 nurses out of a total of 96 nurses working in theatre was obtained using a simple random sampling method. Although 77 nurses needed to be included in the study, this number was raised by 5 more subjects to cater for non-response. A simple random sampling method was used because the population in which sample was drawn from was a group of qualified nurses working in theatre, faced with similar challenges that affected their intraoperative nursing care documentation within the patients' record file.

A sample size of 83 nurses was achieved by getting 96 small pieces of papers, of which 83 papers were labeled **Yes** and 13 papers were labeled **No**. The papers were then folded

and put in a container and all the 96 nurses were asked to peak 1 folded paper each. All those who peaked **yes** were selected to form the study sample.

## 3.6 Inclusion criteria

- All the qualified Nurses employed by KNH and were working in main theatre.
- Nurses who were willing to participate in the study.
- Nurses who were available at the time of data collection.

## 3.7 Exclusion criteria

- Qualified nurses unemployed by KNH.
- Nurses who did not consent to participate in the study
- Nurses who were not in the unit at the time of data collection.

## 3.8 Personnel

### 3.8:1 Research assistants

The research assistants were selected among persons capable of using and interpreting the questionnaire properly and had good communication skills. Three assistants were subjected to a two day training to familiarize themselves with the questionnaire and all the relevant components of the study. This included the ethical issues to be observed and techniques involved in subjecting the participants in the study.

## 3.9 Procedure

### 3.9:1 Tools and instruments

A structured questionnaire was used for nurses working in theatres and a semi structured interview guide was used for the key informants who in this case were the theatre nurse managers. The questionnaire divided into sections namely; - demographic data section

having structured questions and, knowledge attitude and practice (KAP) section for the three areas of operating theatre, which used the Likert scale. An observation guide based on intraoperative assessment factors related to care plan as proposed by Fairchild 1993 was used to assess the actual documentation of the nursing care in theatres

### 3.9:2 Pre-testing of study instruments

This was achieved by pre-testing five questionnaires in the ENT theatre which is in the ENT clinic and is one of the satellite theatres in the same institution. Five nurses were given a questionnaire each and were asked to fill in the questionnaire as instructed. An interview guide was pretested on the nurse in-charge of the same unit. ENT theatre was chosen among other satellite theatres because; operations of shorter ENT cases under the same condition as main theatre are usually done there. Patients are exposed to the three intraoperative phases, (the pre-anesthesia waiting unit, the surgery and post anesthesia recovery phase).

### 3.9:3 Data collection methods

The permission to carry out the study in the hospital was sort from the hospital management. Once granted, each of the 83 nurses selected in the sample were given a structured questionnaire to fill to the best of his/her knowledge. This was done after each of them had read and understood the consent explanation form, and had willingly signed it. Using an interview guide, a face to face interview was conducted to each of the 3 key informants (the nurse managers) who were present at the time of data collection. This was done after the benefits of the study had been explained to them. During data analysis, it was felt that more information was needed to assess the accuracy/ consistency of the

nursing documentation which appeared to be done by the respondents. Therefore basing on intraoperative assessment factors related to care plan as proposed by Fairchild 1993, an observation guide was formulated and used to collect observational data.

### 3.9:4 Variables

In this study, the factors affecting intraoperative nursing documentation that is;- nurses' knowledge, nurses' perception, nurses' practice nurse professional qualification, and nurses experience in theatre were the assumed independent variables. The documentation of the intraoperative nursing care in patient's file was the assumed dependent variable.

### 3.9:5 Data cleaning

All the 83 questionnaires given to the 83 respondents were returned. The collected raw data was cleaned. This was in order to detect errors, omissions, and correct whenever possible. Therefore a careful scrutiny of the completed questionnaires was done. This was to ensure the data's were accurate, consistent with other facts gathered and uniformly filled as complete as possible.

### 3.9:6 Data entry

The cleaned data was coded by, assigning numerals or symbols to answers so that responses could be put into a limited number of categories (classes). This was arranged based on their common characteristics. Data was then entered into the computer, using soft ware computer statistical package for social sciences (SPSS).version 11.5. The data was then tabulated by arranging it in some kind of concise and logical order.

### 3.9:7 Data analysis

Out of the 83 questionnaires returned, three not analyzed due to excessive missing of data. The data of the 80, analyzed by use of descriptive statistical analysis, cross tabulation multivariate statistical method of data analysis with the help of a biostatician. Multivariate statistical method involved employing of the multivariate cross tabulation method that allowed description and exploration of the effect of independent variables on the dependent variable. The method chosen because the study was of descriptive design and had the dependent variable interested in affected by multiplicity of factors (the independent variables). Measures of central tendency were also used in order to get an idea of or a feel for the basic characteristics of data. The analyzed data presented in form of bar charts, pie chart, and tables.

### 3.9:8 Quality control

By pre-testing the questionnaire, all background information was obtained in effort to avoid psychological harm to the respondents. This included things like asking embarrassing questions, expressing shock or disgust while collecting data, using threatening statements or compelling the respondents to say something they didn't believe in or causing fear and anxiety among the respondents.

## 3.10 Ethical considerations

The research proposal was subjected to KNH ethics and research committee and to the ministry of higher education for approval.

The researcher conformed to the principle of voluntary consent. The respondents participated in the research willingly after the real purpose of the research was told to them. The informed consent was based on information regarding, purpose of study, unforeseen risks, a guarantee of anonymity and confidentiality, identification of researcher and the study benefits to respondents.

To ensure confidentiality and privacy, the respondents' information given were kept confidential and their consent was to be sought before revealing any information. This was promised to them before data was collected.

To ensure anonymity, the respondents' names were not to be written on the questionnaire and were not to be disclosed. This was also promised to them. Use of a self administered structured questionnaire as a tool for data collection was fairly free from anxiety to respondents.

No statement or action that lowered a subject self- esteem or self-worth was used, and respondents were not forced to recall unpleasant occurrences against their will. Recognition of all those who assisted in the research in any way was done. The researcher had the right to academic freedom and on issues of intellectual property. Feedback of study to study population will be done.

# CHAPTER 4

# RESULTS

## 4.1 Demographic information

Eighty nurses working in KNH main theatres completed the questionnaires analyzed. To answer the research questions, analysis of the data was done and the results showed that out of the 80 nurses, 43 (53.8%) were female and 37 (46.3%) were male.

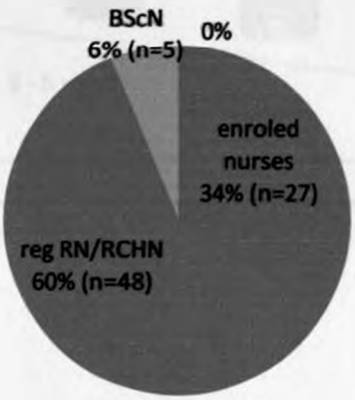
The age distribution of the 80 respondents is illustrated in table 1. Out of those who participated in the study, 31 (38.8%) were between 25 – 29 years of age.24 (30%) were between 30 – 34 years, 16 (20%) were between ages 35 – 44 and the remaining 9 (11.3%) were of age above 45years. The youngest respondent was 27 years old and the oldest respondent was 54 years old. The mean age was 37.56 ± 6.53 years

*TABLE 1: RESPONDENTS AGE DISTRIBUTION (N=80)*

| Age Group | Frequency | Percent |
|---|---|---|
| 25 -29 years | 31 | 38.8 |
| 30 - 34 years | 24 | 30.0 |
| 35 - 39 years | 8 | 10.0 |
| 40 - 44 years | 8 | 10.0 |
| 45 - 49 years | 2 | 2.5 |
| 50 and above years | 7 | 8.8 |
| Total | 80 | 100.0 |

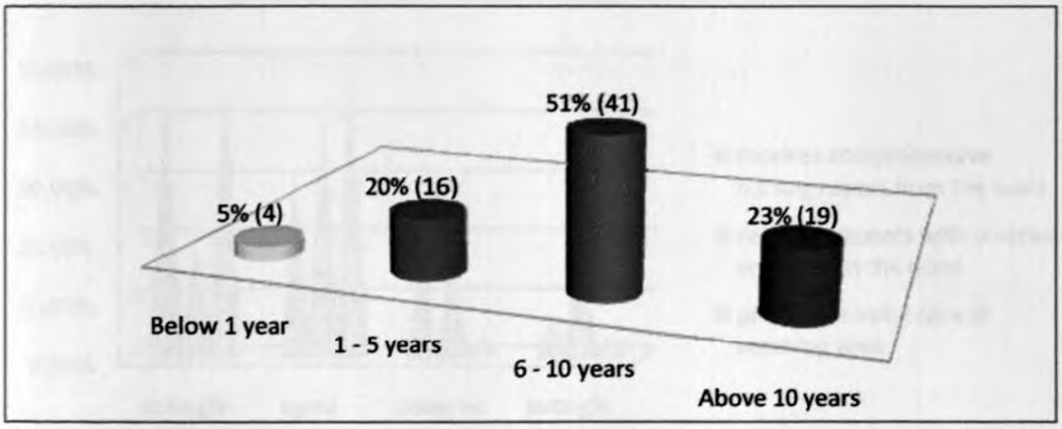
The level of professional qualification of the respondents (figure 1) showed that the majority of respondents (60%, n=48) were RN/RCHN. The enrolled nurses were 33.8 % (n=27) and only 6.2%, (n=5) were BScN (figure 1).

**Fig 1:**
**Level of professional qualification. (N=80)**




The years of experience of the respondents as theatre nurses illustrated in figure 2. About half (51.3% n=41) of the respondents had 6-10years experience as theatre nurses, 19(23.8%) had above 10 years experience, 16(20%) had between 1-5 years experience and only 4(5%) had experience of below 1 year.

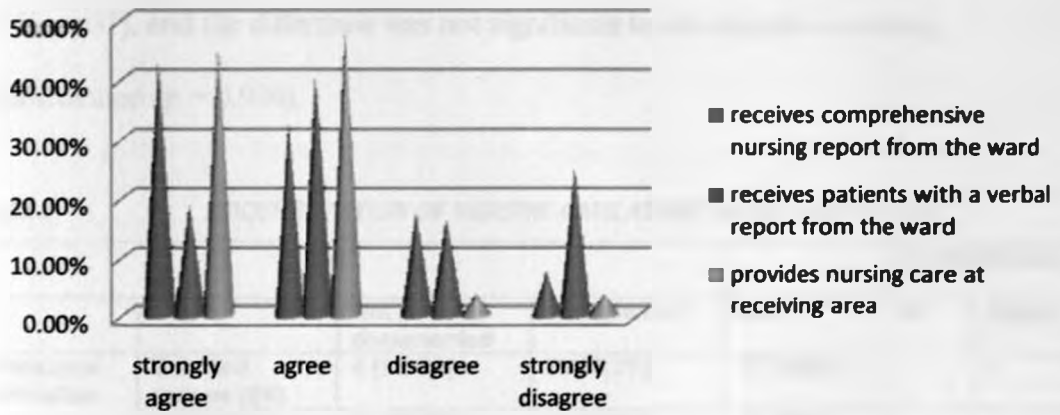
**Fig 2:**
**Years of experience as theatre nurse (N=80)**




## 4.2 Practice in receiving area

Figure 3 illustrates how respondents received patients' documentation from the ward nurse and how they documented their care in patients file while at receiving area. Three quarter of respondents, (75%, n=60) agreed that they receive nursing care documentation of patients from the ward nurse while at receiving area, and 20(25%) disagreed to this. Forty seven (58.8%), appeared to agree to the fact that they receive the patients' with a verbal report while 33(41.3%), disagreed to this. Majority of respondents (92.5%, n=74), agreed to be providing nursing care to the patients while at receiving area and only six (7.6%), did not.

**Fig 3: Reception of nursing care report of patients at receiving area N=80**




## 4.3 Documentation in relation to respondents characteristics at receiving area

Table 2 illustrates nursing care documentation in relation to the respondents' characteristics at receiving area. The results indicated that most of the enrolled nurses (85.2 %, n=23) documented their care in the patients' record file and only 4(14.8%) did not. The RN/RCHNs who documented were 33(68.8%) and those who seemed not to document were 15(31.3%). Two of the BScN (40%) did document while three of them (60%) did not seem to be documenting. It also appeared from the results that slightly over half of the respondents who specialized in theatre nursing (54.2%, n=12), did document their care while the other 11(48.8%) of them did not seem to do so. Slightly over two-thirds of the respondents (70%, n=44), had not specialized in theatre nursing and still 78.6% of them documented their work in patients file while about 19.6% of them didn't.

A higher percentage (78.9%, n=31) of those who had over 10 years of experience did document as compared to those who had below 1 year of experience (50%, n=2). The percentages of males and females who documented were almost the same (73%, n=27 v$^{s}$ 72.1%, n=31), and the difference was not significant to intraoperative nursing documentation (p = 0.930).

*TABLE 2* *DOCUMENTATION OF NURSING CARE AT RECEIVING AREA (N=80)*

| | | | | | Statistical test | |
|---|---|---|---|---|---|---|
| | | Not documented | documented | total | Df | Sig (p) |
| Professional qualification | Enrolled nurses (EN) | 4 (14.8%) | 23(85.2%) | 27 (100%) | - | - |
| | Registered nurses (RN/RCHN) | 15 (31.3%) | 33 (68.8% | 48 (100% | - | - |
| | Bachelor of science nurses(BScN) | 3 (60%) | 2 (40%) | 5 (100%) | - | - |
| Specialized training | Theatre nursing (TH/N) | 11 (45.8%) | 12 (54.2%) | 24 (100%) | - | - |
| | Critical care nursing (CCN) | 0 (0%) | 1 (100%) | 1 (100%) | - | - |
| | Accident & emergency (A&E) | 2 (66.7% | 1 (33.3%) | 3 (100%) | | |
| | Renal nursing (RN) | 0 (0%) | 3 (100%) | 3 (100%) | | |
| | OTHERS | 9 (18.4%) | 40 (81.6%) | 49 (100%) | | |
| Years of experience (theatre nurse) | Below 1 year | 2 (50%) | 2 (50%) | 4 (100%) | | |
| | 1 – 5years | 4 (25%) | 12 (75%) | 16 (100%) | | |
| | 6 – 10 years | 12 (29.3%) | 29 (75%) | 41 (100%) | | |
| | Above 10 years | 4 (21.1%) | 15 (78.9%) | 19 (100%) | | |
| Gender | male | 10 (27%) | 27 (73%) | 37 (100%) | 1 | Pearson-chi=0.930 |
| | female | 12 (27.9%) | 31 (72.1%) | 43 (100% | | |

## 4.4 Respondents perception at receiving area

The reasons that made respondents not to document nursing care in the patients' record file while at receiving area were sought and results were as shown in table3. Twenty nine (36.3%) said that there was no time to document care as patients were too many. Out of these 62.1% of them did document their care in the patients' file and 37.9% did not document their care in patients' file. Seventy-eight percent (78%, n=40) of the 29 who disagreed to this reason documented their care while 21.6% did not. The difference was found not to be statistically significant) to intraoperative nursing documentation (p=0.115).

Out of the 52 (65%) respondents, who said that that they only give special nursing report to the theatre nurse if any and 28(35%) disagreed to this. Thirty-eight (73.1%) of those who agreed documented their care and 14(26.9%) did not. Of the 28 who disagreed, 20(71.4%) seemed to document their work while eight (28.6%) did not. The difference was not statistically significant to intraoperative documentation (p=0.0875)

Slightly over half of the respondents (53.8 %, n=43), said that they documented their care in form of a statement for management but not in the patient file while 46.3% disagreed to this. Of the respondents who agreed to this reason, 30(69.8%) did document their care while 13(30.2%) did not. Among the ones who disagreed, 28(75.7%) did document and 9(24.3%), did not. These difference was not found to be statistically significant to nursing documentation (P= 0.555)

*TABLE 3 REASON FOR NOT DOCUMENTING IN PATIENTS FILE WHILE AT RECEIVING AREA (N=80)*

| | | | | | Statistical test | |
|---|---|---|---|---|---|---|
| **Reason given** | | **Not documented** | **documented** | **total** | Df | Sig (p) |
| **No time (patients too many)** | **disagreed** | **11 (21.6%)** | **40 (78.4%)** | **51 (100%)** | **1** | **Pearson-chi =0.115** |
| | **Agreed** | **11 (37.9%)** | **18 (62.1%)** | **29 (100%)** | | |
| **Only give special verbal report if any to the theatre nurse** | **Disagreed** | **8 (28.6%)** | **20 (71.4%)** | **28 (100%)** | **1** | **Pearson-chi =0.875** |
| | **Agreed** | **14 (26.9%)** | **38 (73.1%)** | **52 (100%)** | | |
| **Document not in file (write special report in form of statement for management )** | **disagreed** | **9 (24.3%)** | **28 (75.7%)** | **37 (100%)** | **1** | **Pearson-chi =0.555** |
| | **Agreed** | **13 (30.2%)** | **30 (69.8%)** | **43 (100%)** | | |

## 4.5 Respondents perception in operating theatre

The respondents appeared to show different perceptions regarding intraoperative nursing care documentation as is shown in table 4. Overall 77 (96.3%) of respondents agreed to believe that intraoperative nursing documentation was very important and only 3 respondents (3.8%) disagreed. Nine respondents (11.3%) appeared to belief that no nursing can be provided in operating theatre of which 6 of them documented. Of the seventy one respondents (88.8%) who seemed to disagree to this, 52 of them documented and 19 did not.

There were respondents 23(28.75%) who seemed to believe that as long as the right patient is brought in operating room with or without the documents, nursing care continued and 57(71.3%) disagreed. Of those who agreed, 15(65.2%) still appeared to document the care. Seventy five percent (75%) of the 57 respondents who seemed to

disagree to this reason documented their care in the file but 14(24%) of them did not document.

Twenty-six (32.5%) respondents said that they expect only special nursing care reports written in the patients file. Among them, 19 (73.1%) still documented their care while seven (26.9%) did not document. On the other hand 54(67.5%) who seemed to disagree to this reason, 39 (72.2%) did document the care but 15(27.8%) of them seemed not to document.

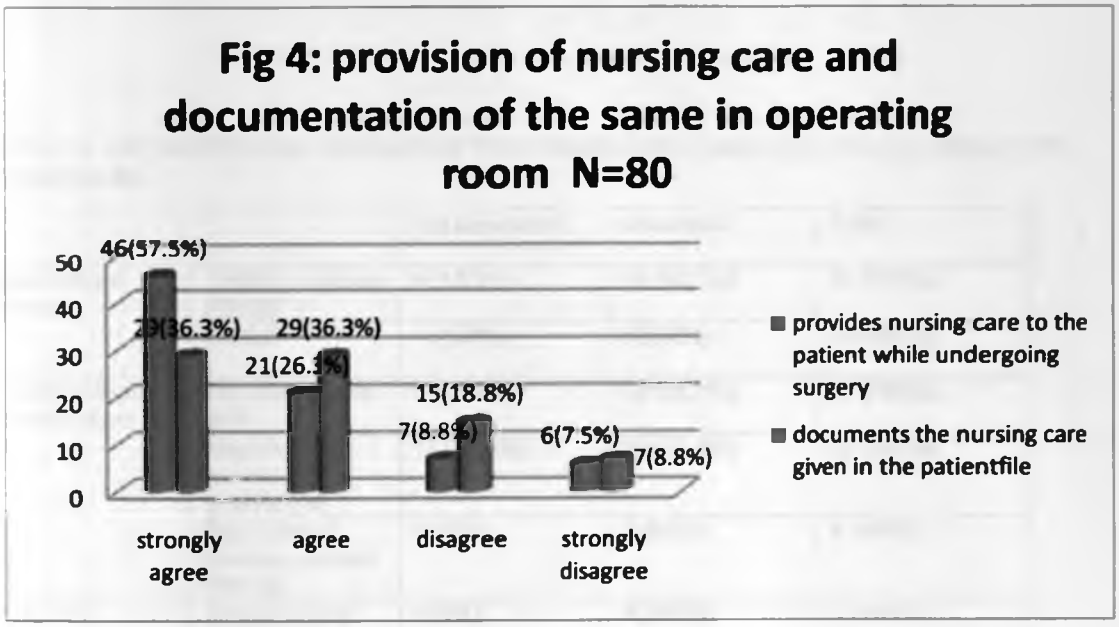
*TABLE 4: RESPONDENTS PERCEPTION ON INTRAOPERATIVE NURSING DOCUMENTATION IN THE OPERATING THEATRE (N=80)*

| | | | | | Statistical test | |
|---|---|---|---|---|---|---|
| perception | | Not documented | documented | total | Df | Sig (p) |
| No nursing care can be provided to a patient while undergoing surgery | disagreed | 19 (26.8%) | 52 (72.2%) | 71 (100%) | - | Fisher exact test =0.033 |
| | agreed | 3 (33.3%) | 6 (66.7%0 | 9 (100%) | | |
| As long as the right patient is brought to theatre, nursing continues with or without written report | disagreed | 14 (24.6%) | 43 (75.4%) | 57 (100%) | 1 | Pearson -chi =0.354 |
| | agreed | 8 (34.8%) | 15 (65.2%) | 23 (100%) | | |
| Expects only special nursing report to be written in the patients file | disagreed | 15 (27.8%) | 39 (72.2%) | 54 (100%) | 1 | Pearson –chi =0.936 |
| | agreed | 7 (26.9%) | 19 (73.1%) | 26 (100%) | | |
| Believes intraoperative nursing documentation is important | disagreed | 2 (66.7%) | 1 (33.3%) | 3 (100%) | | Fisher exact test =0.182 |
| | agreed | 20 (26%) | 57 (74%) | 77 (100%) | | |

## 4.6 Practice of respondents in the operating room

In the figure 4, the results indicated that 67(83.8%) of respondents seemed to agree to be providing nursing care to the patient while undergoing surgery and 13(16.3%) of them

did not agree with this fact. On the other hand, 58 (72.6%) of respondents seemed to be documenting the nursing care given to their patients in the record file while in operating theatre, and 22 (27.4%) appeared not to be doing so.




## 4.7 Documentation in relation to respondents characteristics in operating room

The table 5 illustrates how respondents appeared to document their intraoperative nursing care in the patients' file while in the operating suit. Twenty-four respondents (30%) had specialized in theatre technique and among them, 16(66.7%) appeared to be documenting the care while 8(33.3%) didn't document.

Slightly over two thirds of the respondents (70%, n=56) did not have specialty in theatre technique and of these respondents, 42(75%) seemed to be documenting. Only 14(25%) seemed not to be doing so. The RN/RCHN had the higher percentage (77.1%, n=37). Two thirds of the enrolled nurses (66.7%, n=18) and three (60%) of the BScN also

appeared to be documenting their care in the file. All the four respondents who had less than 1 year of experience documented the care and the least percentage (56.3%,n=9)was among respondents who had 1-5 year experience in theatre.

*TABLE 5: DOCUMENTATION IN RELATION TO RESPONDENTS CHARACTERISTICS IN OPERATING ROOM(N=80)*

| | | Not document | document | Total |
|---|---|---|---|---|
| Specialized training | Theatre nursing (TH/N) | 8 (33.3%) | 16 (66.7%) | 24 (100%) |
| | Others | 14 (25%) | 42(75%) | 56(100%) |
| Professional qualification | Enrolled nurses (EN) | 9 (33.3%) | 18 (66.7%) | 27 (100%) |
| | Registered nurses (RN/RCHN) | 11 (22.9%) | 37 (77.1%) | 48 (100%) |
| | Bachelor of science nurses (BScN) | 2 (40% | 3 (60%) | 5 100%) |
| Years of experience (theatre nurse) | Below 1 year | 0 (0%) | 4 (100%) | 4 (100%) |
| | 1 – 5 years | 7 (43.8%) | 9 (56.3%) | 16 (100%) |
| | 6 – 10 years | 9 (22%) | 32 (78%) | 41 (100%) |
| | Above 10 years | 6 (31.6%) | 13 (68.4%) | 19 (100%) |

## 4.8 Perception in operating room

The reasons given for not documenting their intraoperative nursing care given to the patients while in the operating suit were as illustrated in table 6. Seventy-six (95%) respondents disagreed to the fact that they did not know how to document intraoperative nursing care while in operating theatre. However, among these respondents, 73.7% still documented intraoperative care and 26.3% appeared not to document. Only four (5%) respondents who agreed to this reason and a half of them appeared to document. However the difference was not statistically significant (p=0.303).

Eighteen respondents (22.5%), agreed to the reason that there was no provision for nursing documentation in the patients file. Among them, 8(44.4%), appeared to document the care and 10(55.6%), seemed not to document. The difference was statistically significant to intraoperative documentation (P= 0.005).

A higher percentage (61.25%, n=49), of respondents seemed to agree that they do document the care given for the management in form of a statement. Of these respondents, 71.4 % agreed to be documenting their care in the patients file care and only 28.6% appeared not to be documenting their nursing care in the patients file. However the difference was statistically significant (p=0.787).

Slightly less than a quarter (21.3%, n=17) of the respondents agreed that there was no time available for them to document their nursing care. Among them, 8(47.1%) documented their care and 9(52.9 %) appeared not to document the care. Out of the sixty-three respondents (78.8%) who disagreed to this, 50(79.4%) of them documented and 13(20.6%) of them did not. The difference was found to be statistically significant (P= 0.014).

Nine respondents (11.3%) agreed that they document care on a separate piece of paper, which they destroyed as the patient left theatre. Two thirds of them (66.7%, n=6) appeared to document in the file while a third of them33.3percentage, n=3) did not. Among the seventy-one respondents who disagreed, 52(73.2%) documented their care

and 19(26.8%) did not document. The difference was found not to be statistically significant (p=0.700).

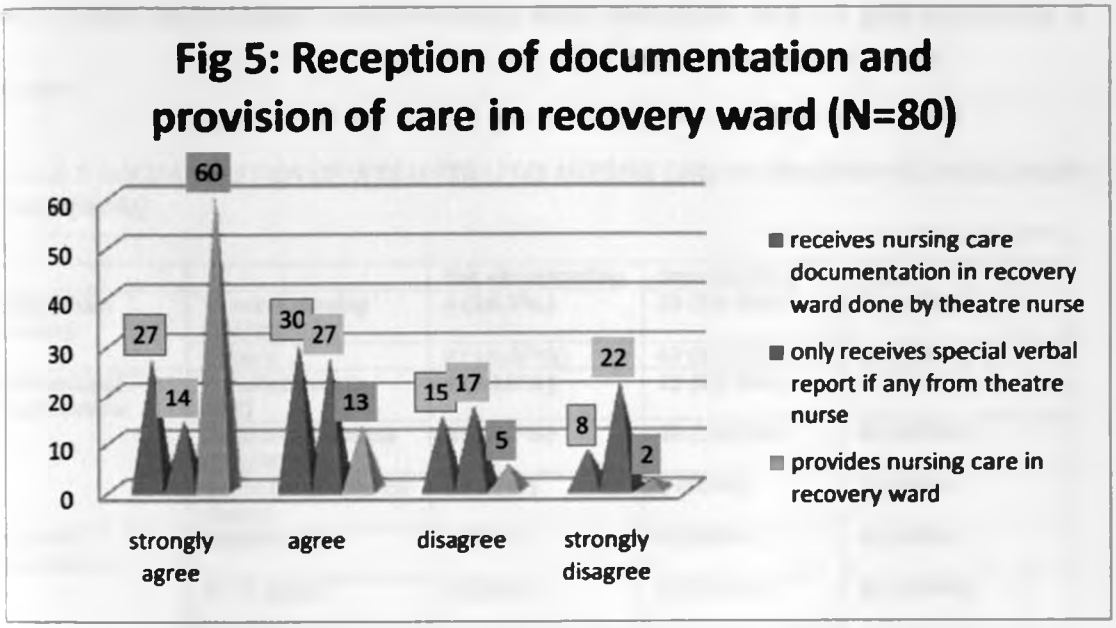
*TABLE 6: REASON FOR NOT DOCUMENTING INTRAOPRATIVE NURSING CARE IN PATIENTS FILE WHILE IN OPERATING ROOM (N=80)*

| | | | | | statistical test | |
|---|---|---|---|---|---|---|
| Reason given | | Not documenting | documenting | Total | df | Sig (p) |
| Knowledge and skills on intraoperative care documentation | Disagreed | 20 (26.3%) | 56 (73.7%) | 76 (100%) | - | Fisher exact test =0.303 |
| | Agreed | 2 (50%) | 2 (50%) | 4 (100%) | | |
| There is no provision for nursing care documentation in the patients file | Disagreed | 12 (19.4%) | 50 (80.6%) | 62 (100%) | - | Fisher exact test =0.005 |
| | Agreed | 10 (55.6%) | 8 (44.4%) | 18 (100%) | | |
| Document (not in the file)care given in form of a statement for management | Disagreed | 8 (25.8%) | 23 (74.2%) | 31(100%) | 1 | Pearson – chi =0.787 |
| | Agreed | 14 (28.6%) | 35 (71.4%) | 49 (100%) | | |
| There is no time available to document care given in the patients file | Disagreed | 13 (20.6%) | 50 (79.4%) | 63 (100%) | - | Fisher exact test =0.014 |
| | Agreed | 9 (52.9% | 8 (47.1%) | 17 (100% | | |
| Document care on a separate piece of paper which is destroyed after the patient leaves operating suit | Disagreed | 19 (26.8%) | 52 (73.2%) | 71 (100%) | - | Fisher exact test =0.700 |
| | Agreed | 3 (33.3%) | 6 (66.7%) | 9 (100%) | | |

## 4.9 Practice in recovery ward

Fifty-seven (71.3%) of all respondents seemed to agree to the fact that they receive documented nursing report done by the theatre nurses while in recovery ward. The rest 23(28.7%) of the respondents seemed to disagree to that (figure 5). Forty-one respondents (51.3%) agreed that they only receive special verbal report if any from theatre nurse and 39 (48.8%) disagreed to that. More still, 73 (91.3%) of the respondents agreed that they

provide nursing care to the patients while in recovery ward and only seven (8.7%) seemed not to agree to this.




## 4.10 Documentation in relation to respondents characteristics in recovery ward

Table 7 shows how respondents seemed to be documenting their intraoperative nursing care in the patients file while in recovery ward as per their characteristics. Of all the eighty respondents, 24(30%) of them had specialized in theatre technique and among them, 20(83.3%) documented the care in the patients file while four (16.7%) appeared not to document. Fifty-six (70%) respondents did not have specialty in theatre technique and of these respondents, 47(83.9%) still seemed to be documenting while only nine (16.07%) seemed not to be doing so. The enrolled nurses formed the higher percentage of respondents who appeared to document their patient care (85.2%, n=23). About forty (83.3%) of the RN/RCHN and four (80 %) of the BScNs also appeared to be

documenting their care. All the four respondents who had less than 1 year of experience appeared to document their care and the least percentage (75%, n=12) of respondents who seemed to document care in recovery ward were those with 1-5 year experience in theatre.

*TABLE 7: DOCUMENTATION OF INTRAOPERATIVE NURSING CARE IN PATIENTS FILE IN RECOVERY WARD (N=80)*

| | | Not documenting | documenting | Total |
|---|---|---|---|---|
| Specialized training | Theatre nursing (TH/N) | 4 (16.7%) | 20 (83.3%) | 24 (100%) |
| | Others | 9 (16.07%) | 47 (83.9%) | 56 (100%) |
| Professional qualification | Enrolled nurses (EN) | 4 (14.8%) | 23 (85.2%) | 27 (100%) |
| | Registered nurses (RN/RCHN) | 8 (16.7%) | 40 (83.3%) | 48 (100%) |
| | Bachelor of science nurse | 1 (20%) | 4 (80%) | 5 (100%) |
| Years of experience | Below 1 year | 0 (0%) | 4 (100%) | 4 (100%) |
| | 1 – 5 years | 4 (25%) | 12 (75%) | 16 (100%) |
| | 6 – 10 years | 7 (17.1%) | 34 (82.9%) | 41 (100%) |
| | Above 10 years | 2 (10.5%) | 17 (89.5%) | 19 (100%) |

## 4.11 Perception in recovery ward

The reasons given that made the respondents not to document their intraoperative nursing care given to the patients while in the recovery ward were as shown in table 8.

About 19% (n=15) of the respondents agreed to the reason that there was no provision for nursing documentation in the patients file. Two thirds of them still documented their and a third didn't. Among the sixty-five respondents who disagreed to this, 12.3% of them documented and 87.7% did not. The difference was statistically significant (p=0.05).

Among the 30 (37.5%) respondents who appeared to agree that there was no time for them to document their care in the patients file, 25(83.3%) of them documented their care

and only16.7% did not seem to document. Of the fifty respondents who disagreed to this, 16% documented and 84% did not. The difference was not statistically significant (p=1.000).

*TABLE 8 REASON FOR NOT DOCUMENTING INTRAOPERATIVE NURSING CARE IN PATIENTS FILE IN RECOVERY WARD*

| | | | | | Statistical test | |
|---|---|---|---|---|---|---|
| Reason given | | Not documenting | documenting | Total | df | Sig (p) |
| There is no provision for nursing care documentation in the patients file | Disagreed | 8 (12.3%) | 57 (87.7%) | 65 (100%) | - | Fisher exact test =0.05 |
| | Agreed | 5 (33.3%) | 10 (66.7%) | 15 (100%) | | |
| No time to document the nursing care given in patients file(due to shortage of staffs) | Disagreed | 8 (16%) | 42 (84%) | 50 (100%) | - | Fisher exact test =1.000 |
| | Agreed | 5 (16.7%) | 25 (83.3%) | 30 (100%) | | |

## 4.12 Knowledge in relation to hospital policy on intraoperative nursing care

Tables 9- 11 show the knowledge the respondents in relation to hospital policy on intraoperative nursing documentation. Fifty six (70%) of the respondents agreed that they had knowledge of hospital policy on intraoperative nursing documentation and applied it in their practice. Twenty-two (27.5%) respondents seemed to agree to be having the knowledge of hospital policy on intraoperative nursing documentation though it was difficult for them to implement it in their practice. Only about one eighth of respondents (n=10)agreed that they had no knowledge of any hospital policy.

*TABLE 9 HOSPITAL POLICY ON INTRAOPERATIVE NURSING CARE DOCUMENTATION AT RECEIVING AREA*

| | | | | | Statistical test | |
|---|---|---|---|---|---|---|
| | | Not document | document | Total | df | Sig (p) |
| Knows of hospital policy in respect to intraoperative nursing documentation and applies it in practice | Disagreed | 7 (29.2%) | 17(70.8%) | 24 (100%0 | 1 | Pearson – chi =0.827 |
| | Agreed | 15 (26.8%) | 41 (73.2%) | 56 (100%0 | | |
| know of the hospital policy on intraoperative nursing documentation but it is difficult to interpret or put it in practice | Disagreed | 14 (24.1%) | 44 (75.9%) | 58 (100%) | 1 | Pearson – chi =0.274 |
| | Agreed | 8 (36.4%) | 14 (63.6%) | 22 (100%) | | |
| don't know if there is any policy in the hospital on intraoperative documentation | Disagreed | 19 (27.1%) | 51 (72.9%) | 70 (100%) | - | Fisher exact test =1.000 |
| | Agreed | 3 (30%) | 7 (70%) | 10 (100%) | | |

*TABLE 10 HOSPITAL POLICY ON INTRAOPERATIVE NURSING CARE DOCUMENTATION IN OPERATING THEATRE*

| | | | | | Statistical test | |
|---|---|---|---|---|---|---|
| | | Not document | document | Total | df | Sig (p) |
| Knows of hospital policy in respect to intraoperative nursing documentation and applies it in practice | Disagreed | 13 (54.2%) | 11 (45.8%) | 24 (100%) | 1 | Pearson – chi =0.000 |
| | Agreed | 9 (16.1%) | 47 (83.9%) | 56 (100%) | | |
| know of the hospital policy on intraoperative nursing documentation but it is difficult to interpret or put it in practice | Disagreed | 16 (27.6%) | 42 (72.4%) | 58 (100%) | 1 | Pearson – chi =0.978 |
| | Agreed | 6 (27.3%) | 16 (72.7%) | 22 (100%) | | |
| don't know if there is any policy in the hospital on intraoperative documentation | Disagreed | 16 (22.9%) | 54 (77.1%) | 70 (100%) | - | Fisher exact test =0.023 |
| | Agreed | 6 (60%) | 4 (40%) | 10 (100%) | | |

*TABLE 11 HOSPITAL POLICY ON INTRAOPERATIVE NURSING CARE DOCUMENTATION IN RECOVERY WARD*

| | | | | | Statistical test | |
|---|---|---|---|---|---|---|
| | | Not document | document | Total | df | Sig (p) |
| **Knows of hospital policy in respect to intraoperative nursing documentation and applies it in practice (in recovery ward)** | **Disagreed** | **10 (41.7%)** | **14 (58.3%)** | **24 (100%)** | - | **Fisher exact test** =0.000 |
| | **Agreed** | **3 (5.4%)** | **53 (94.6%)** | **56 (100%)** | | |
| **know of the hospital policy on intraoperative nursing documentation but it is difficult to interpret or put it in practice(in recovery ward)** | **Disagreed** | **9 (15.5%)** | **49 (84.5%)** | **58 (100%)** | - | **Fisher exact test =0.745** |
| | **Agreed** | **4 (18.2%)** | **18 (81.8%)** | **22 (100%** | | |
| **don't know if there is any policy in the hospital on intraoperative documentation** | **Disagreed** | **7 (10%)** | **63 (90%)** | **70 (100%)** | - | **Fisher exact test** =0.001 |
| | **Agreed** | **6 (60%)** | **4 (40%0** | **10(100%)** | | |

As seen illustrated in the tables (9 -11), fifty-six respondents seemed to agree that they have knowledge of hospital policy on intraoperative nursing documentation and applied it in their practice and 24 respondents disagreed to this.

At receiving area, 41(73.2%) of the56 who agreed documented their care in the patient file while 15(26.8%) of them seemed not to document their care in the file. Out of 24 respondents who disagreed, 70.8% documented and 9.2% did not. The difference however was not statistically significant (p=0.827).

Within the theatres, 83.9% of 56 who agreed documented their care and 16(27.6%) of them did not document their care. At the same time, 45.8% of the 24 respondants who disagreed documented while 54.2% of them did not. The difference however was found to be statistically significant (p= 0.000).

Finally in recovery ward, 94.6% of the 56 respondents who agreed documented their care and only 5.4% of them appeared not to. Out of 24 respondents who disagreed, 58.3% documented and 41.7% did not. Again the difference was found to be statistically significant (p=0.000)

There were 22 respondents who agreed to have knowledge of hospital policy on intra operative nursing documentation but found it difficult to apply it and 58 respondents who disagreed to this.

In receiving area, out of the 22 respondents who agreed, about sixty three percent (63.7%) of them appeared to document their care and 36.4% seemed not to document their care. About seventy five percent (75.9%) of the 58 respondents who disagreed to this documented while 24.1% of them did not. However the difference was not statistically significant (p=0.274).

In operating theatre, 72.7% of the 22 respondents who agreed document their care and 27.3% of them did not document. Out of the 58 respondents who disagreed to this, 72.4% of them appeared to document their care and 27.6% did not. Here also the difference was not statistically significant (p=0.0978)

Finally in recovery ward, 81.8% of the 22 who agreed seemed to be document their care while 18.2% of them appeared not to document their care. On the other hand, 84.5% of the 56 respondents who disagreed documented while 15.5% of them did not. Again the difference here was not found to be statistically significant (p=745)

Ten respondents agreed that they had no idea of any hospital policy on intraoperative nursing documentation and 70 respondents disagreed to this.

At receiving area seven of those who agreed documented and 3 didn't, at the same time 72.9% of those who disagreed documented and 29.2% of them did not. The difference was not statistically significant (p=0.827). Within the operating rooms, 40% of 10 respondents who agreed documented and 60% of them did not. In addition, 77.1 of the 70 who disagreed documented and 22.9% of them did not. The difference found was statistically significant. (p=0.023). In recovery ward, 40% of the 10 respondents who agreed documented and 60% of them did not. At the same time, 90% of the 70 respondents who disagreed documented and only 10% of them did not. Again the difference was found to be statistically significant (p=0.001).

## 4.13 Information from the key informants

It was necessary to interview theatre managers in order to understand better, how their staffs documented the care and get from them the effect hospital policy had on intraoperative nursing documentation. Therefore, three-theatre managers 1 male and 2 female were interviewed. One had RN/RCHN, one had BScN and 1 had Masters degree in nursing. Two of these managers had experience as theatre managers of above 10 years while 1 had experience of between 1-5years as theatre manager. They gave different opinion on how to improve intraoperative nursing documentation. 1 suggested that policies on intraoperative nursing documentation should be put in place. The second one suggested that theatre staffs made aware on the importance of proper documentation and the third one suggested that staffing in the department should be improved.

The three nurse managers interviewed believed that intra operative nursing documentation was important. They also believed that nurses in their department

documented care in the patients' record file. They all agreed to have been involved in teaching /supervising the theatre nurse students in the clinical area and said that the students documented their care in the patients' file. They all agreed that theatre trained nurses practiced documentation of care in patients file as learned. However, one of them suggested that the hospital had a policy on intraoperative nursing documentation which nurses applied in their daily practice while two of them said that the hospital had no policy on intraoperative nursing documentation.

## 4.14 Observation of the patients files

There was also need to observe the files at traffic out of the patients who were ready for discharge to the ward aimed at evaluating the actual documentation. Ten record files of the 10 patients who were ready for discharge from operating theatre, purposefully selected and inspected. All the files had records of physiological monitoring of the patients recorded by recovery ward nurse and this was done behind the anesthetic chart. No evidence of any other intraoperative nursing data was observed and what was written was uniformly done. Also no documentation from the ward nurse was observed. It was also observed that time for this physiological assessment was recorded but records did not indicate where and by whom the records are being done.

# CHAPTER 5

# DISCUSSIONS, CONCLUSION AND RECOMMENDATIONS

## 5.1 Discussions

### 5.1:1 Demographic information

Out of the eighty respondents who completed the questionnaire, 53.8% were female, and 46.3% were male. Most of them were middle aged with the mean age of 37.56 years. The youngest respondent was 27 years old and the oldest respondent was 54 years old. Sixty percent (60%) of the respondents were RN/RCHN, the enrolled nurses were 33.8 % and only 6.2%, had bachelors of nursing degree (BScN). Their experience in the unit was that most of the respondents 51.3%, had 6-10years experience as theatre nurses, 23.8% had above 10years experience, 20% had between 1-5 years experience and only 5% had experience of below 1 year. On the other hand, sex of the respondents' did not influence their documentation, as there was no significant difference in documentation in relation to gender (73% male and 72.1%, female).

### 5.1:2 Practices

***5. 1:2-1 Documentation of nursing care in operating theatre.***

From the results three quarters of respondents (75%, n=60) agreed to the fact that they receive nursing care documentation of patients from the ward nurse while at receiving area, and a quarter of them 25%, n=20) disagreed to this. At the same time, forty-seven (58.8%) also agreed to the fact that they receive the patients' with a verbal report while 33(41.3%) disagreed to this. This showed that there were some inconsistencies in the way

nurses in theatre receive nursing care documents from the ward. Probably, there is no standardized method/procedure, which guides nurses on how they should receive nursing care documents from their colleague ward nurses. The practice found at the receiving area is different with Fairchild (1993) explanation, which said that, the operating room nurse provides a continuity of care throughout the intraoperative period based on standard and recommended practice as per AORN. Majority of respondents 74(92.5%) agreed to be providing nursing care to the patients while at receiving area and only a few six did not. About seventy-three percent (72.6%, n=50) of respondents seemed to be documenting the nursing care given to their patients in the record file while in operating theatre even though 67 (83.8%) respondents had agreed to be providing nursing care to the patients.

Fifty-seven (71.3%) of all respondents seemed to agree to the fact that they receive documented nursing report done by the theatre nurses while in recovery ward and 23(28.7%) disagreed. Forty one (51.3%) of the respondents also to agreed to receive verbal report if any from the theatre nurse. Majority 73(91.3%) of the respondents agreed that they provide nursing care to the patients while in recovery ward.

On observation, the respondents were documenting in the patients file but only in recovery ward, which is contrally to the report given by respondents indicating documentation in three areas. Again, the records showed only physiological monitoring of the patients, consistent in all files observed. The documentation done according to Fairchild (1993) was inaccurate and incomplete documentation. This observation violated the argument by Mecker and Rothrock (1996) who stated that accurate nursing care

documentation is an integral part of all phases of nursing process. It was also against the statement by Paice et al (1991) who stated that documentation must be accurate, clear, concise, complete, and timely. That although speed in health care was essence, accuracy, and completeness was imperative when documenting.

### 5.1:3 Professional qualification

In receiving area, most of the enrolled nurses (85.2%) documented their care as compared to 68.8% of the RN/RCHN and 40% of the BScNs who documented. In operating room, The RN/RCHN formed the higher percentage (77.1%) of respondents who appeared to document their patient care in patients' file when compared to 66.7% of the enrolled nurses and 60% of BScN. In recovery ward, again the enrolled nurses formed the higher percentage (85.2%) of those who documented their patient care compared to about 83.3% of the RN/RCHN and 80% of the BScNs. The results showed that the percentage of those who documented declined with the increase in professional qualification at the receiving area and recovery ward and not in operating room. One could expect the reverse to be true where the higher the professional qualification one has the better they perform their documentation. Therefore, professional qualifications seem not to influence intraoperative nursing documentation.

### 5.1:4 Experiences

It appeared that experience of respondents in operating theatre had an influence on how they did their intraoperative nursing documentation at receiving area unlike in operating room and recovery ward. At receiving area, a higher percentage (78.9%) of those who had over 10 years of experience did document their care compared to those who had

below 1 year of experience (50%). In theatre, all the respondents who had less than 1 year of experience appeared to document the care and the least percentage (56.3%) was among respondents who had 1-5 year experience in theatre. The recovery ward also had all the respondents who had less than 1 year of experience documenting the care and the least percentage of respondents who documented care in recovery ward again were those with 1-5 year experience in theatre. This suggests that experience in theatre nursing does not influence how respondents document their care while in operating room and recovery ward and as it does at receiving area.

## 5.1:5 Perceptions

### *5.1:5 -1 Respondent's perception on intraoperative nursing documentation*

The respondents showed different perceptions regarding intraoperative nursing care documentation. Almost all respondents (96.3%, n=77) agreed to believe that intraoperative nursing documentation was very important. This was in agreement with what their managers believe too and also with Wilkison (2001) comment which states that documentation is important for continuity of care as it prevents fragmentation, repetition and delay in patient care. However, this seems not to be having any significant effect on intraoperative documentation (P =0.182). Although there were some respondents (28.8%) who seemed to suggest that they continue with care with or without documentation, almost a third (32.5%) felt that they expect only special nursing care in documented in the file. These factors seem not to affect the intraoperative care documentation (p >0.005). However, only nine respondents appeared to agree that no nursing care was in operating theatre, this believe seem to have an effect on

intraoperative nursing care documentation even if two thirds of them (six) documented the care in the patients file. (P =0.033).

***5.1:5-2 Reason for not documenting intraoperative care.***

From the reasons suggested, only four (5%) respondents appeared to agree to the fact that they did not know how to document their care in the file while in theatre. The rest 78(95%) seem to agree that they know how to document the care. From observation inaccurate and incomplete documentation was done suggesting that respondents lacked knowledge on proper intraoperative documentation as proposed by Fairchild (1993). However this reason seems not to affect intraoperative nursing documentation (P= 0.303) even though 50% of them seemed to document still.

The reason that there was no provision in the file for nursing documentation to be done appeared to affect intraoperative nursing documentation in this area, although 44.4% of 18 who agreed still document the care p=0.005). Only 18.8% of the respondents in recovery ward seemed to agree to the reason that there was no provision for nursing documentation in the patients' file. However, this reason seems to be a significant factor affecting intraoperative nursing documentation in this area too (P=0.05). These findings supported by the observation results, which showed used anesthetic chart improvised for nursing recording. However, the results violated views by Elska (2006) who said documentation of nursing process is an important but often neglected part of clinical practice

Although at the receiving area (37.9%) of the 29 respondents who felt that the patients were too many and therefore no time was available for them to document their care in the patient's record file, 18(62.1%) of them still appeared to document their care in patients' record file. However, lack of time as a factor seems not to affect intraoperative nursing documentation at receiving area (p=0.115), but it seem to affect intraoperative nursing documentation in operating room (P= 0.014) where of the 17 respondents who agreed to this, 8(47.1%) of them appeared to document their care. On the other hand, despite 30 (37.5% )of respondents in recovery ward agreeing that there was no time available for them to document their care in patients' file, time factor did not affect intraoperative nursing documentation in this area as it did in theatres (p=1.000).

This results supported by the key informants' opinion in which they said that improving staffing in the department could improve intraoperative nursing documentation. These results differed with the statement by Navuluri (2001) that, lack of time and shortage of staff should not be the reason for nurses to miss documentation of their care since they are required to provide quality patient care and do effective documentation at the same time even when there is shortage of staffs. This could be possible with use of perioperative nursing data set (PNDS) as suggested by Lange & Meadow 2002 when they said that PNDS makes it easier for intraoperative nurse to document completely and effectively their desired patient outcomes, nursing diagnosis, and clinical interventions Some respondents agreed to be documenting care but not in the patients' file. In receiving area, as much as a half (43) respondents appeared to agree to the reason that documentation was done in form of a statement for the management. Slightly over two

thirds of them 30(69.8%) did document their care. This reason also does not seem to affect intraoperative nursing documentation at receiving area. (P= 0.555). Secondly, 38(73.1%) of 52 respondents who seemed to agree that they only give special nursing care to the theatre nurse if any did document their work. This reason also did not affect intraoperative nursing documentation (p= 0.875).

In operating room, about two thirds of the nine respondents who agreed that they document care on a separate piece of paper, and destroy as the patient leaves theatre, documented their care in the patients file and a third of them did not. On the other hand, 71.4% of the 49 respondents who appeared to agree that they document the care given for management in form of a statement appeared to be documenting in the patients' file also. However, these two factors seem not to have a significant effect on intraoperative nursing documentation (p>0.05). The reasons pointed out again strengthens what Elska (2006) stated that documentation of nursing process is an important but often neglected part of clinical practice. That means that there is no communication tool for the nurse resuming postoperative care of the patient as suggested by Fairchild (1993). Therefore, this makes it difficult to provide continuity of care by subsequent caregivers and hence results in fragmentation, repetition and delay in patient care as stated by Wilkison (2001). Therefore the results proves that The respondents were at novice stage of Berner's theory as per their nursing care documentation and need to move through the 5 stages of Dreyfus model to reach expert level.

### 5.1:6 Knowledge

#### *5. 1:6-1 Specialization*

In the three areas of operating theatre, a higher percentage of the respondents who had not trained in theatre technique appeared to document their care compared their

counterparts who had trained in theatre technique. At the receiving area, although the majority (70%) of the 56 respondents had not specialized in theatre nursing technique, still 45(78.6%) of them documented their work in patients file compared to about half of the 24 nurses with theatre nursing technique specialty who documented their care. In operating room, specialty in theatre nursing technique did not influence whatsoever how respondents documented their care. Three quarters of the 56 respondents (75%, n=42) who did not have specialty in theatre technique did document their care compared to two thirds of 24 respondents with specialty in theatre technique. In recovery ward, there was no significant difference on documentation in relation to specialization. Slightly above eighty percent (83.3%) of those who had specialized in theatre technique and 83.9% of those who did not have specialty in theatre, technique all documented the care in the patients' file. The results suggested that specialization in theatre nursing technique had no influence on how nurses did their documentation of intraoperative nursing care. This is probably because those without specialization in theatre technique manage to learn from their counterparts with theatre technique specialty.

### *5.1:6-2 Knowledge on hospital policy's intraoperative nursing documentation*

From the results, fifty six respondents (70%) agreed that they had knowledge of hospital policy on intraoperative nursing documentation and applied it in their practice. This factor, though seemed not to have a significant effect on intraoperative nursing documentation in receiving area ((P=0.827), it was also statistically significant in operating theatres and in recovery ward (P= 0.000) where 83.9% and 94.6% of the 56 respondents documented.

Twenty- two respondents seemed to agree to be having the knowledge of hospital policies on intraoperative nursing documentation but were difficult for them to implement it in their practice. However, this seemed not statistically significance in the three areas ($p > 0.05$). Therefore, it did not affect the intraoperative nursing documentation in operating theatre theatre.

Only about one eighth of the respondents (10) agreed that they had no knowledge of any hospital policy. As few as they were, they seemed to have a very significant effect on the documentation in both the operating theatre ($p=0.023$) and in recovery ward ($P=0.001$), but not in receiving area ($p= 1.000$). The results suggest that knowledge of the respondents in relation to institution intraoperative nursing documentation can significantly affect the subjects practice on the same positively or negatively.

Even though the majority of respondents agreed to know the hospital policy and applied it in practice, two out of three of their managers said that the hospital had no policy on intraoperative nursing documentation. They also suggested that the same be in place. This could suggest that most likely the respondents may not know what hospital policy on intraoperative nursing documentation is in the first place.

## 5.2 CONCLUSION

The study comes up with the following conclusions:

1. There was evidence of some nurses documenting their nursing care information in the patient file, which was inadequate and incomplete because of lack of knowledge by respondents on proper documentation.

2. Qualification, specialization, and experience of respondents did not influence intraoperative nursing documentation. Probably because respondents learn from one another as they practice.
3. Lack of time to document nursing care, lack of provision in the patients file for nursing documentation, perception that no nursing is done in theatre and knowledge on hospital policy were factors found to affect intraoperative documentation
4. The respondents were at novice stage of Berner's theory as per their nursing care documentation and need to move through the 5 stages of Dreyfus model to reach expert level.

## 5.3 RECOMMENDATION

The study recommends that:

1. Since there is no clear hospital policy on intraoperative nursing care documentation, it is important for the hospital to draw up a clear policy on the same.
2. There is need for urgent continuing education on intraoperative nursing care documentation to be organized by the hospital. This is aimed at creating awareness and skill development to all practicing theatre nurses on intraoperative nursing care documentation. Therefore nurses need to be moved through the five levels of Dreyfus model as expelled out in Bernner's theory to reach the expert level.
3. The professional theatre nurses need to come up with a theatre nursing notes chart which should be available in all preoperative patients file. With availability of this charts then perioperative nursing data set (PNDS) method of documentation should be introduced in order to address time factor.

### 5.3:1 RECOMMENDED AREAS FOR FURTHER RESEARCH

1. The effect the inaccurate intraoperative nursing documentation has caused on the post operative follow up care of patients in surgical wards at KNH.

2. Assessment of knowledge attitude and practice the KNH theatre nurses have on intraoperative nursing documentation policy.

# REFERENCES

**Anderson B, (2006);** Social aspect of documentations, wikipedia free encyclopedia [on line] available http://en wikipedia.org/wiki/document.

**AORN Congress (2002).** Standards recommended practice with official AORN statements. Association of operating room nursing inc. 2170 south parker road suit 300 Denver, co 80231.

**Benner P. (1983a, 1996b, 1999c).** Nursing care when bernner theory is applied in Tomey and Alligood (2006). *Nursing theorist and their work sixth edition.* Mosby Elsevier.

**Benner Patricia (1984).** Norvice to expert in Alligood and Tomey (2006), *Nursing theory, utilization and application, third edition pp.* Mosby Elsevier.

**Bowles, Kathy (1997).** The barriers and benefits of nursing information system (continuing education). Vol 15(4) pp 191-196. Lippincott-roven

**Elska Ammenworth (2006).** Documentation of nursing process, Journal of the American medical information association Nov 1, (2006) 13(6) 668-675

**England E.T (1995).** Charting tips Avoids incomplete charting. Nursing vol 95 oct pp 73

**Fairchild S.S (1993).** Comprehensive perioperative nursing review. Jones and Battleth publisher [on line] available http://www.books.google.com books.

**Fisher's (1999).** Cochrane formula for sample size determination. In Mugenda O.M and Mugenda A.G (2003). *Research methods quantitative and qualitative approaches.* Acts press, Nairobi Kenya

**Gladwell(2002).** Functional characteristics of documentation. [On line] wikipedia free encyclopedia available http://en wikipedia.org/wiki/document.

**Herper & sellen,(2001).** Functional characteristics of documentation. [On line] wikipedia free encyclopedia available http://en wikipedia.org/wiki/document.

**Kothari C.R, (2003).** Research Methodology methods and techniques second edition. K.K Gupta for new international (p) Ltd, ramprintograph, new delhi-110051

**Levy D, (2003);** Social aspect of documentations, wikipedia free encyclopedia [on line] available http://en wikipedia.org/wiki/document.

**Lewis, (2002).** Social aspect of documentations. Wikipedia free encyclopedia [on line] available http://en wikipedia.org/wiki/document.

**Longe-knitse & Meadow (2002).** Applying information technology to pump up operating room efficiency – nursing economic [on line] available http://finderticles.com.articles jan 26 2008.

**Mecker & Rothrock, (2004).** Alexander's care of patient in surgery 9th edition. Mosby year book st Louis Missouri 63146

**Nurses legal hand book (1987).** 'Springs house cooperation'. Springs house P.A

**Navururi Romesh B. (2001).** Documentation: what, why, when, where, who, how. Springs journal [on line]

**Paice, J.A; Mahon, S.M. and Faut-callahan, M. (1991).** Factors associated with adequate pain control in hospitalized post surgical patients diagnosed with cancer. Journal cancer nursing, (1416) 298-305.

**Paice, J.A; Mahon, SM; Faut-collahan, M. (2004).** American journal of critical care, (13); 126-136

**Paone Patricia M (1994).** Nursing documentation, Springs journal

**Park K.Y (2005). (UTC).** Documentation. Wikipedia the free encyclopedia. [On line] available http://en wikipedia.org/wiki. Document

**Romano, (1989).** Classical role and workflow in documentation. [On line] Wikipedia free encyclopedia available http://en wikipedia.org/wiki/document.

**Searle, (1996).** Social aspect of documentations, wikipedia free encyclopedia [on line] available http://en wikipedia.org/wiki/document.

**Salender,(1998).** American journal of critical care, (13); 126-136

**Sekaran Uma (2006).** Research methods for business, a skill building approach, fourth edition. John Wiley & sons, Inc. New delhi, India

**The legal eagle eye (2006,** Nov). newsletter for nursing profession vol 14 page 3. on line] http://www.nursinglaw.com/subscriber.htb

**Wesch, (2006).** Future documents. Wikipedia. free encyclopedia available http://en wikipedia.org/wiki/document

**Wilkinson, (2001).** Nursing process, a critical thinking approach. 2nd edition. Addison Wesley a division of Benjamin/cummings publis co inc.

# APPENDICES

## Appendix 1- Approval letter from research and ethics committee

KENYATTA NATIONAL HOSPITAL
APPROVED
21 MAY 2008
ETHICS & RESEARCH COMMITTEE

**KENYATTA NATIONAL HOSPITAL**
Hospital Rd. along Ngong Rd
P.O. Box 20723-00202, Nairobi
Tel: 2726300-9
Fax: 725272
Telegrams: "MEDSUP", Nairobi
Email: knhadmin@knh.or.ke

Ref: KNH-ERC/ 01/ 423

21st May, 2008

Rose M. Wafubwa
School of Nursing Sciences
UNIVERSITY OF NAIROBI

Dear Rose

**RESEARCH PROPOSAL: "FACTORS AFFECTING DOCUMENTATION OF INTRAOPERATIVE NURSING CARE AT KENYATTA NATIONAL HOSPITAL MAIN THEATRE" (P31/2/2008)**

This is to inform you that the Kenyatta National Hospital Ethics and Research Committee has reviewed and **approved** your above revised research proposal for the period 21st May, 2008 – 20th May, 2009.

You will be required to request for a renewal of the approval if you intend to continue with the study beyond the deadline given. Clearance for export of biological specimen must also be obtained from KNH-ERC for each batch.

On behalf of the Committee, I wish you fruitful research and look forward to receiving a summary of the research findings upon completion of the study.

This information will form part of database that will be consulted in future when processing related research study so as to minimize chances of study duplication.

Yours sincerely

**PROF A N GUANTAI**
**SECRETARY, KNH-ERC**

c.c. Prof. K.M. Bhatt, Chairperson, KNH-ERC
The Deputy Director CS, KNH
The Director, School of Nursing Sciences, UoN
Supervisors: Prof. Joyce Musandu, School of Nursing Sciences, UoN
Mr. James Mwaura, School of Nursing Sciences, UoN
Mrs. Teresia Odero, School of Nursing Sciences, UoN

## Appendix 2- Approval letter from ministry of Education

REPUBLIC OF KENYA

# MINISTRY OF HIGHER EDUCATION SCIENCE & TECHNOLOGY

Telegrams: "SCIENCE TEC", Nairobi
Telephone: 02-318581
E-Mail:ps@scienceandtechnology.go.ke

JOGOO HOUSE "B"
HARAMBEE AVENUE,
P.O. Box 9583-00200
NAIROBI

When Replying please quote

**Ref. MOHEST 13/001/ 38C 465/2** **11th August 2008**

Rose M. Wafumbwa
University of Nairobi
P.O. Box 30197
**NAIROBI**

**RE: RESEARCH AUTHORIZATION**

Following your application for authority to carry out research on, ***'Factors Affecting Documentation of Intraoperative Nursing Care at Kenyatta National Hospital main Theatre,***

I am pleased to inform you that you have been authorized to carry out research at Kenyatta National Hospital for a period ending 30th September, 2008.

You are advised to report to the Director, Kenyatta National Hospital before embarking on your research.

On completion of your research, you are expected to submit two copies of your research report to this office.

**M. O. ONDIEKI**
**FOR: PERMANENT SECRETARY**

Copy to:

The Director
Kenyatta National Hospital
**NAIROBI**

# Appendix 3 Research clearance permit from ministry of education

PAGE 2

THIS IS TO CERTIFY THAT:

Prof./Dr./Mr./Mrs./Miss. ROSE M. WAFUBWA

of (Address) UNIVERSITY OF NAIROBI P.O.BOX 30197 NAIROBI

has been permitted to conduct research in KENYATTA NATIONAL HOSPITAL Location, NAIROBI District, NAIROBI Province,

on the topic FACTORS AFFECTING DOCUMENTATION OF INTRAOPERATIVE NURSING CARE AT KENYATTA NATIONAL HOSPITAL MAIN THEATRE

for a period ending 30TH SEPTEMBER 20 08

PAGE 3

Research Permit No. MOHEST 13/001/38C 465

Date of issue 11.8.2008

Fee received SHS.500

M.O.ONDIEKI

*Applicant's Signature*

FOR: *Permanent Secretary Ministry of Science and Technology*

CONDITIONS

1. You must report to the District Commissioner and the District Education Officer of the area before embarking on your research. Failure to do that may lead to the cancellation of your permit.
2. Government Officers will not be interviewed without prior appointment.
3. No questionnaire will be used unless it has been approved.
4. Excavation, filming and collection of biological specimens are subject to further permission from the relevant Government Ministries.
5. You are required to submit at least two(2)/four(4) bound copies of your final report for Kenyans and non-Kenyans respectively.
6. The Government of Kenya reserves the right to modify the conditions of this permit including its cancellation without notice

REPUBLIC OF KENYA

RESEARCH CLEARANCE PERMIT

GPK 6055—3m—10/2003

(CONDITIONS—*see* back page)

# Appendix 4 Approval letter by KNH management

Rose M. Wafubwa.
University of Nairobi.
School of Nursing Sciences
P.O Box 19676.
Nairobi.
Jan. 2008.

The Director,
K.N.Hospital,
P.O Box 20723, 00200.
Nairobi.
**ATT: The deputy director, clinical services.**

Dear Sir/madam,

**RE: APPROVAL TO CONDUCT A STUDY IN K.N.H**

I am requesting for the approval to carry out a study in K.N.H main theatre on **Factors impending documentation of intraoperative Nursing care among Nurses in main theatre.** In the process, there will be no harm to the respondents. I am a 2nd year student at the university of Nairobi undertaking Master of Science degree in critical care Nursing. The study is part fulfillment for the award of same degree.
Attached please find a copy of the letter of approval from KNH-REC of the same. I will be most grateful for your consideration and due assistance.
Thank you.

Yours Faithfully,

R.M. Wafubwa.
MscN 11
Reg No H56/P/8414/06

42

## Appendix 5- Participants consent information form

Dear participant,

My name is Rose M. Wafubwa, a 2nd year student at the University of Nairobi undertaking Masters of Science degree in critical care Nursing. I am carrying out a study on; **Factors affecting documentation of intraoperative nursing care at K.N.H main theatres.**

I am inviting you to participate in this study. Participation is voluntary and information on factors affecting intraoperative Nursing care documentation is what is needed. This study is for academic purpose. The results of the study will help improve the nursing professionalism among K.N.H theatre nurses and also improve the post operative follow up care of patients who have undergone surgery in the same institution as a result of improved continuity of nursing care given to patients throughout intraoperative period. These benefits will be realized later not now. You are guaranteed confidentiality by not writing your name on questionnaire. Any issues arising in the process of the study will be addressed appropriately with your permission and treated with confidentiality. You are free to seek more information regarding the study through the contacts provided below and you will be assisted appropriately.

You are free to withdraw from the study at any stage without conditions or victimization whatsoever.

Your participation is highly appreciated.

Thank you and I wish you success in your profession.

**NOTE**

For any further concern or information contact;


The Researcher,
P.O Box 2977, 00100,
Nairobi.
Tel:0722693056
E-mail address romulemia @ yahoo.com

OR

The director.
School of Nursing Sciences
P.O Box 19676
Nairobi.
Tel: 2711250


**Consent**

I understand that my participation is voluntary and that I may refuse to participate or withdraw my consent and stop taking part at any time without penalty.

I hereby freely consent to take part in the study.

Name..... Date.....

Sign.....

## Appendix 6: Questionnaire for theatre nurses

I am a postgraduate student at the University of Nairobi conducting a study on the **Factors affecting documentation of intraoperative nursing care at K.N.H main theatres.** The study is to enable me write an academic report as part of the requirements of the MScN program. I kindly request you to respond to the following questions as accurately as possible. All the information given will be treated as confidential and used for academic purposes only.

I look forward to your kind co-operation.

1. **DEMOGRAPHIC DATA OF THE RESPONDENT**
   i. Gender ( please tick) [1] male [2] female
   ii. Age in years ( please tick appropriate answer)
      a. 18-30
      b. 31-40
      c. 41-50
      d. Over 50
   iii. Highest level of Professional qualification
      a. Enrolled nurse
      b. Registered (RN/RCHN)
      a. Bachelor of science nurse (BScN)
      b. Master of science nurse (MSN)
   iv. Specialized training undertaken
      a. Theatre nursing
      b. Critical care nursing
      c. Accident and emergency nursing
      d. Renal nursing
   v. Years of experience working as a theatre nurse since qualification
      a. Below 1 year
      b. 1-5 years
      c. 6-10 years
      d. Above 10 years

vi. Years of experience working as a theatre nurse in KNH

a. Below 1 year

b. 1-5 years

c. 6-10 years

d. Above 10 years

**KNOWLEDGE ATTITUDE AND PRACTICE OF NURSES IN RELATION TO DOCUMENTATION**

Indicate with a tick the extent to which you agree to each of the following statements on intraoperative nursing care documentation.

**Strongly disagree 1** **Disagree 2** **Agree 3** **strongly agree 4**

| Q No | Statement | 1 | 2 | 3 | 4 | |
|---|---|---|---|---|---|---|
| | **(In receiving area)** | | | | | |
| 2. | I believe that intraoperative nursing documentation is very important and needs to be done | | | | | |
| 3. | Ward nurse hands over to me the patient with a well written comprehensive nursing care report in the patients record file | | | | | |
| 4. | Ward nurse hands over the patient to me with a verbal comprehensive nursing care report | | | | | |
| 5. | At receiving area, I provide nursing care to the patients | | | | | |
| 6. | I do document this nursing care in the patient record file | | | | | |
| 7. | Patients are usually too many and no time to enable me write nursing notes in each of the patient record file | | | | | |
| 8. | I only give special verbal report if any, to the theatre nurse about the patient | | | | | |
| 9. | I only write a special nursing report if need be in form of a statement and give to the management | | | | | |

| | | | | | | |
|---|---|---|---|---|---|---|
| | **(in operating suit )** | **1** | **2** | **3** | **4** | |
| 10. | I always receive a patient with a comprehensive nursing care report written in patients file by receiving area nurse | | | | | |
| 11. | I expect only special nursing report to be written in the file | | | | | |
| 12. | As long as the right patient for the right surgery is brought in operating suit with or without nurses' report, I continue with my care | | | | | |
| 13. | I do provide nursing care to the patient while undergoing surgery | | | | | |
| 14. | There is no nursing care one can provide to a patient while undergoing surgery | | | | | |
| 15. | I do document the nursing care given to the patient in the patients record file | | | | | |
| 16. | I do not know how to document nursing care given to the patient in the patients record file | | | | | |
| 17. | I do document nursing care of special cases in form of a statement and take to management | | | | | |
| 18. | There is no provision for nursing care documentation in patients record file for one to do so | | | | | |
| 19. | I document the care on a separate piece of paper which is destroyed after patient leaves the operating suit | | | | | |
| 20. | There is usually no time available for me to document the nursing care given to the patient in the patient's record file | | | | | |
| | **( in recovery ward)** | **1** | **2** | **3** | **4** | |
| 21. | I receive the patient with a comprehensive written nursing report in the patient file | | | | | |
| 22. | I only receive a special verbal nursing care report if any | | | | | |
| 23. | I do provide nursing care in recovery ward | | | | | |
| 24. | I do document this nursing care in the patient file which I then hand over to the ward nurse | | | | | |

| | | | | | | |
|---|---|---|---|---|---|---|
| 25. | There is no provision in the patient file for nurses to write the patient care they give | | | | | |
| 26. | Due to shortage of staff and overwhelming number of patients we handle, is not possible to document each patient care in patient file as there is no time to do so. | | | | | |
| 27. | I know of the hospital policy on intraoperative nursing documentation and I apply it in my practice | | | | | |
| 28. | I know of the hospital policy on intraoperative nursing documentation but it is difficult to interpret it in practice | | | | | |
| 29. | I don't know if there is a hospital policy on intraoperative nursing documentation | | | | | |

**Thank you very much for your co-operation.**

## Appendix 7- Interview guide for the key informants

I am a postgraduate student at the University of Nairobi conducting a study on the **Factors affecting documentation of intraoperative nursing care at K.N.H main theatres.** The study is to enable me write an academic report as part of the requirements of the MScN program. I kindly request you to respond to the following questions as accurately as possible. All the information given will be treated as confidential and used for academic purposes only.

I look forward to your kind co-operation.

1. Gender of the officer ( please tick) [1] male [2] female
2. Age in years ( please tick appropriate answer)
   [1] 18-30
   [2] 31-40
   [3] 41-50
   [4] Over 50
3. Professional qualification
   [1] Registered (RN/RCHN)
   [2] Bachelor of science nurse (BScN)
   [3] Master of science nurse (MSN)
4. Years of experience as a theatre nurse manager
   [1] Below 1 year
   [2] 1-5 years
   [3] 6-10 years
   [4] Above 10 years
5. Do you believe perioperative nursing care documentation is important?
   [1] Yes [2] No
6. Do the nurses in your department document the intraoperative nursing care given to the patients in the patients file?
   [1] Yes [2] No
7. If the answer to question 6 above is No, why? ( for each statement given, tick if you find it is true and don't mark if false)
   [1] They have no time to document the intraoperative nursing care.

[2] They do not know how to document intraoperative nursing care in theatre

[3] I find it not necessary for nurses' document the nursing care in theatre

[4] There is no place in the patients' file where nurses can document their nursing care

8. Does the hospital have a policy guideline on perioperative nursing documentation?

   [1] Yes [2] No [3] I don't know

9. Do the nurses in your department apply it in their daily nursing practice?

   [1] Yes [2] No [3] I don't know

10. Have you been involved in teaching or supervising theatre students in their practices within the clinical area?

    [1] Yes [2] No

11. Do the theatre students document the implemented nursing care given to their patients in the patient file? [1] Yes [2] No

12. Do the nurses who have undergone through a theatre course in the institution practice what they learned on perioperative nursing documentation in their daily practice?

    [1] Yes [2] No [3] I don't know

13. If the answer to question 18 above is No, what do you think should be done to improve on intraoperative nursing documentation in your department?

    .....

    .....

**Thank you very much for your co-operation.**

## Appendix 8 Observation guide

**Accurate documentation**

| | what | when | where | By whom |
|---|---|---|---|---|
| Intraoperative teaching | | | | |
| Verification of all documents | | | | |
| Adherence to principals of asepsis | | | | |
| Positioning safely | | | | |
| Monitoring physiological support | | | | |
| Monitoring psychological support | | | | |
| Communication method | | | | |
| Documentation of nursing activity | | | | |